1941

1941. 1 1½ miles N. E. of Sidney, Cheyenne Co., Nebraska. July 16, 1941 ~~Unnamed~~ ~~4900~~ 4200 feet. (Chalk). (R.-R.).

Rolling high plains with shallow washes between. Crow grama grass with scattered white sage, much opuntia - few Yucca filamentosa.

~~Food~~

Mermissus sp. 1 juv. Acrolophitus. Local. Amphitormus 1 my local. Phlibostroma 1 my small juv. - all sum. Cnidillanis occipit. & crenulata Local. Agenceletis juv. only. Ambrosia elatior Juv - scattered.

Xanthippus 18, 24. All sum. Spharagemma collare 1 ad. + nu. juvs. Trimerotropis sutticula ? 1 juv - all sum. Hadrotettix Juv. only. Hesperotettix spissa Juvs. only - local. Campylacantha Juvs. only. Dactylotum - sum. juvs. - no collected. Melanoplus occidentalis - abundant, general. Melanoplus mexicanus v spretus, local. Mel. confusus - few. Mel. foedus - local, occasional. Mel. bruneri - local, not numerous. Mel. ~~bivittatus~~ bivittatus - general. Pediodectes - nu. juvs, all sum.

Orth.	88
Other ins.	38 + ~~not~~

1941. 2 Near Camp Clark, between Bridgeport and Chimney Rock, south side of North Platte River, Morrill Co., Nebraska. Elev. 3800 feet. July 16, 1941 (R. & R.)
Gentle slopes of south ~~side~~ valley. Typical Great Plains conditions. Tall grass, thistle, white sage, Rudbeckia, ~~thistle~~ few cacti, yucca, etc. Also sedge area along bordering irrigation ditch.
Mermicia. Occ. in tall grass on hill slope - all sum. Amphitomus - juvenal but scattered on hill slope. Philotrotoma Two - juvs. only, on hill slope. Orphulella - Two juvs. ditto. Chorthippus 1 adult, all sum, in sedge area. Tuberculata. Two on hillslope. Hippiscus. Scattered on hill slope, usually wary and strong flying. Xanthippus. ditto, ditto, ditto. Hadrotettix - Local on hill slope. Mestobregma 1 all sum, on hill slope.
Mel. bruneri - local, hill slope. Mel. occidentalis not common, hill slope. Mel. confusus - local, on hill slope. Mel. femurrubrum - Two, hill slope. Mel. mexicanus - Two, hill slope. Campylacantha. juvs only, on hill slope. Hadrotettix - one adult + 1 juv. all sum, hill slope. Hypochlora juvs. only, hill slope. Pediodectes - juvs. only, not infrequent, mainly in cactus.

Orth.	39	+	88	= 127
Other ins.	44	+	38	= 82

↑ + Alcoholics

1941. 3 Wild Cat Hills, south of Rondeau Pass, Scotts Bluff Co., Nebraska. Elev. (ex U.S.G.S.) 4500-4600 feet. July 16, 1941. (R.-R.) In broad draw in group of hills slightly west of south of Rondeau Pass. Great Plains plant zone undisturbed and not at all badly grazed. Cover both grama grass and short grass, thistle, Rudbeckia etc.

Udonopsylla found running on surface of ground and hiding in shallow burrows in the ground, of average depth of nine inches. Spilopsyllus, Brachystola, Xanthopsylla, Paropsmala, = immat. Pedrodontes, Meractis a Hoplostomma in cover about camp.

Host.	19 + 258	127	=	146
Cotton rats.	~~150~~ 151 + allotherkinds	82	=	~~217~~ 340

1941. 4. Same as 1941. 3 but July 17, 1941. A.M. All taken from area immediately about camp.

Meriones. 1 juv. only one taken.

Acrolophitus. - local & numerous. Cordillacus occipitalis - Common. Amphistomus - locally abundant. Philistostoma - few adults & juvs. Agenoteltes - locally abundant. Ambrosia elliotti - locally numerous, two in coitu. Xanthippus - general, relatively numerous, usually scarce. Meractis - local. Hoplostomma -

2 adults - 1 juv., all sum. Sphangeum
aequale - one all sum. S. collare -
found and abundant. Hadrotettix -
1 ad, some immature. Melanoplus
rufa - one sum then without net.
Brachystola - few adults, juvs more
numerous, ads taken. Melanoplus
foedus - 1 ad but numerous. Mel.
bowditchi - few. Mel. mexicanus -
relatively few. Mel. confusus - few.
Ageneotettix - sum taken, either dug out
of holes or walking on ground. Burrows
seen found to be either straight oblique
or at certain depth turned parallel
to the ground surface. Two examined were
less than six inches deep and about
one in four dug out had an inhabitant.
Opuntia usually stridulating in top of
thistle bushes or in another low prickly
plant with small yellow flowers. Both
sexes of female Tettigidae were walking on the
ground and usually males were doing the
same thing.

Orth.	216	+ 146	=	362
Other sps.	60	+ 340	=	400

1941.5. Fort Laramie, Goshen Co., Wyoming.
July 17, 1941. Elev. 4425 feet. (R. & R.).
Heavily grazed short grass plains condition much invaded by tumble weed, and stony shingle on slope in sand.
Litaneutria - 1 juv. from Opuntia. Aeoloplitus - scattered, on shingle and in grass areas.
Amphitornus - one only, all sum. Cordillacris occipitalis numerous. Aulocara elliotti numerous and general. Phlibostroma, 1 ad. taken, two juvs. seen. Xanthippus flav, 18 ♀ taken. Hadrotettix trifasciatus, general but not common. Brachystola general adult (taken) fall sum. Melanoplus foedus, local but not numerous. Mel. bowditchi, ditto, ditto. Mel. confusus var. Mel. occidentalis, few.

Orth. 33 + 362 = 395
Other ins. 20 + 400 = 420

1941.6 Three miles W. of Casper, Platte Co., Wyoming. Elev. 4800 feet.
July 17, 1941. (R. & R.)
Top of plains escarpment bordering North Platte valley. Some tall curly grass (Bouteloua ?), scattered Artemisia & Opuntia. Upper slopes & crevices than lower section.

Agmostatis ♂ few.

Philibostroma, few, mostly juv - one adult seen but lost. Cordillacris occipitalis, few but not abundant. Aulocara, few but uncommon. Acrolophitus, few + local. Mestobregma plattei, local, near rocks. Hadrotettix, few. Circotettix, among rocks and on soil at foot of rocks, locally numerous. Trimerotropis fontana, one ♂ bare rocky outcrop. Brachystola, few, all juvs. Dissosteira incidens, one adult + several juvs. Campylacantha, one juv. Tetrix, one smaller than Melanoplus bowditchi, tegs brush type, local. Mel. mexicanus, local, near sage. Mel. confusus, few. Pediodectes, 1 juv. in cactus.

Orth. 45 + 395 = 440
Other ins. 15 + 420 = 435

1941. 7 Fifteen miles north of Casper, Natrona Co., Wyoming, Elevation, 5500 feet. July 18, 1941. (R. & R.) In low Atriplex and taller salt brush with some short grama grass. No Orthoptera at all except 1 ad. Acrolophus + several juvs. in cover, Trimerotropis gracilis on bare dry silt and 1 Trim. pallidipennis on ditto.

Orth. 5 + 440 = 445
Other ins. 24 + 435 = 459

1941. 8 Near Lavoye, Natrona Co., Wyoming. Elev. 5300 feet. July 18, 1941. (R.-R.).

Strip bluff slope with open tall pine cover, low ~~sagebrush~~ corn sage, low atriplex, much grass, much cactus, etc.

Agoseris 1 juv. all dem. Melampodium brachiatum sage type. - one, all dem. Mel. confusum, one, all dem. Mel. fordus, one, all dem. Mel. mexicanum dem but leaf. Haplostellix viridis, one adult, all dem. Micropsula, juvs. only, few.

With. 9 + 445 = 454

Other ins. 25 + 459 = 484

1941. 9 Near Crazy Rim Crossing, 20 miles N. of Kaycee, Johnson Co., Wyoming. Elev. 4900 feet. July 18, 1941. (R.-R.).

Roadside ditch in alkaline soil.

Orthodontium gladiatum minimum in full open touches along sides of drain, ~~but~~ undulating regularly but many and hard to locate. Finally two were taken, although a number were seen but treating was not successful in account of thymus. Mel. brittatum few. Mel. mexicanum minimum.

With. 10 + 454 = 464

Other ins. 1 + 484 = 485

1941.12 (cont.)

Orth. 0 + 468 = 468

Other ins. 57 + 807 = 864
+ alt.

1941.13 Same locality as 1941.12 but July 19, 1941. (R.-R.).

Typical Hudsonian conditions of low corn & low sage, columbine and numerous other flowering annuals, between & among firs and fox-tailed pine. Nearby the East Tuolumne Creek flowed through more solid fir forest. Many (well) boulders & scattered over the surface.

Circotettix rabula altior, not uncommon on boulders & in similar situations. Was aerial dancing by night also.

Melanoplus infantilis. Two in open areas on & among the low corn. 2 taken.

Mel. brunneri, one only, in same situation. 1 taken

" mexicanus, few in same situation. Several taken.

Chorthippus. One seen but lost.

Hesperotettix carolinus. One seen but lost.

Camnula 1 juv. taken, all seen.

Xanthippus ? 1 juv. taken, all seen

Steiroxys. Two or more in low corn, 1 ♀ taken. No others seen.

Orth. 12 + 468 = 480.

Other ins. 49 + 864 = 913

1941. 14 Tensleep Canyon, Big Horn Mts., Washakie Co., Wyoming. Elev. 7600 ft. July 19, 1941. (R.-R.)

Sage brush covered slope, with stunted low shrubbery and a "cow cabbage" like annual. Brunerica 1 ad. + sev. juvs., all scarce. Cratypedes neglectus 1, all scarce. Melanoplus infantilis Rather common but very hard to get from the low sage in which it both occurs. Mel. sp. related to infantilis, with rather similar cerci, 4 ♂♂ taken, actions similar to infantilis. Mel. frigidus species with broad short cerci, very few and very elusive, 1 ♂ 2 ♀ taken. Amphitornus, single specimen seen and taken. Stenopola 1 ♀ seen but lost.

Orth. 14 + 480 = 494.
Other ins. 3 + 913 = 916.

1941. 15 Four miles north of Thermopolis, Hot Springs Co., Wyoming. Elev. 4300 feet. July 19, 1941. (R. & R.)

Flat largely sage covered, with much low opuntia and bunch-grass patches.

Philobrosa, numerous, some juvs., on ground. Aulocara elliotti, one, all seen. Trimerotropis gracilis, few on ground. T. pallidipennis, few on ground. Metator, one small local group. Metabruna, local, not common. Hesperotettix speciosus seen. Melanoplus confusus, several ♂♂

1941. 15 (Cont.)

taken. Mel. lowdittiki, sage brush type, numerous but elusive, hiding in sage. Mel. mexicanus, taken. Mel. femur-rubrum, one taken from roadside ditch. Autopleus, taken, hiding in cactus when pursued. One pair taken in coitu.

Urth. 34 + 494 = 528.
Other sps. 5 + 916 = 921.

1941.16 North end of Wind River Canyon, Hot Springs Co., Wyoming. Elev. 4450 feet. July 19, 1941. (R.-R.). Canyon bank very narrow between canyon walls and turbulent river. Arabrus in great numbers crossing the road surface, the great majority heading toward the river, which was not over fifty feet away and 250 feet below. Females were relatively few, about ten to 25 among the individuals collected. The males stridulated almost continuously, but protested more loudly and vehemently when pursued or seized. Two males were found hiding under rocks entirely at the river's edge and there also scattered individuals were perched singly on tops of rocks. In places they were clinging to almost vertical rock faces bordering the road. In one stretch single individuals were often noticed crossing the road, at three hundred

ones so engaged in a distance of a few yards. They are killed by passing automobiles in large numbers, and other individuals of the species are often found feeding on the victims, sometimes as many as three feasting on one dead one. (p'typo) The principal area of road on which they are passing was 1 3/4 miles long. Probably the migration was due to ~~—~~ deduced food supply to the east of the roadway, but clearly many thousands are involved in this total movement. Of the five females collected, two were full of eggs, two had just a few eggs left, and one no eggs at all. Apparently the outbreak was past its height, from the evidence of the females dissected.

A few immature Pangonula were seen here, and one collected. Mel. latifasciatus was numerous the nine days, and one was collected.

Orth. 42 + 528 = 570.
Other ins. 2 + 921 = 923.

1941. 17 Six miles S. E. of Morton, Fremont Co., Wyoming. Elev. 5300 feet. July 20, 1941. (R. & R.).
Sage brush flat with adobe soil, some low bunch grass.
Philobostroma, males adult, females juv., local

1941. 17 (cont.)

Cordillacris occipit., numerous. Paropomala, one adult, all seen. Mestobregma, fairly common. Hesperotettix h. viridipennum, local, not common, one juv. Aeropedellus, four taken, several lost. Strong flying and wary. Trimerotropis p. pallidipennis, juv. T. latifasciata, local, just maturing, some juvs. T. bilobata, not common & local, some juv. T. gracilis, common in adobe, occasionally flying into sage. Melanoplus bowditchi, sage third type, one ♂ taken. Mel. occidentalis, several ♀♀, ♂ seen but lost. Mel. mex. several. Mel. foedus, a few only.

With. 90 + 570 = 660.

Other ins. 7 + 923 = 930.
+ ale.

1941. 18 Fifteen miles S. E. of Hudson, Fremont Co., Wyoming. Elev. 6500 feet. July 20, 1941. (R. R.).

On outwash slope of red silt and broken rock fragments at foot of bluff of red fine-grained sandstone. Cover almost entirely low sage. Wind very strong and work difficult in consequence.

Cordillacris occ., numerous, often hiding in sage. Trimerotropis gracilis, one only. T. caerulipennis, one only. Crotypedes, local. Melanoplus occidentalis, several, all seen.

With. 21 + 660 = 681.

Other ins. 7 + 930 = 937.

1941.19 Wind River 5 m. blow Dubois, Fremont Co., Wyoming. Elev. 7400 feet. July 20, 1941. (R.-R.).

Hill slope with sage and ~~grass~~ short grass, some rocky pavement of scattered stones and a few good sized boulders. Windy - work difficult.

Brunnia long-winged species - 1♂, 2♀, all sun but other males heard. Brunnia short-winged species, no female only, all sun. Psolocossa delicatula, numerous on ground, active. Cratypedes, two taken, all sun. Trimerotropis montrida, several males + one juv - all adults seen taken. T. gracilis, one adult + 1 juv. taken - all sun. Circotettix rabula, very many, about five sun, one taken, strong wind carried them long distance and made capture almost impossible. Melanoplus infantilis, numerous and active.

Orth. 37 + 681 = 718.
Other sps. 5 + 937 = 942.

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1941.20 East side of Twogunter Pass, Wind River Mts., Fremont Co., Wyoming. Elev. 9300 ft. July 20, 1941. (R. & R.).
Mountain meadow, dry at edge of fir forest, many flowering annuals & numerous grass.
No adult Ochthophila seen, only numerous quite juv. individuals.
Orth. 2 + 718 = 720.
Other ins. 89 + 942 = 1031.

1941.21 Dick Turpin Meadow, Buffalo Fork w. side of Wind River Mountains, Teton Co., Wyoming. N Elev. 6925 feet. July 20, 1941. (R. - R.) In spruce-pine - spruce forest, at light at night. (near stream.)
Orth. 0 + 720 = 720.
Other ins. 49 + abt. + 1031 = 1080.

1941.22 Same as 1941.21 but July 21, 1941. Sunfast a stream wash shelf of cobbles and pebbles bedded in silt, with much pine - spruce dead needle drift. Shrubs - sage and similar low bushes - many annuals in full bloom. Cratyporus immunis. Asphisis, one taken all stem. Melanoplus sp. 1 ♂ in hand but lost, 1 ♀ also seen. Abedus 1 ♂ stridulating in a narrow-leafed

shunt at a height of 18 inches above the ground. Larval tubes found, but could not be located.

Arth: 11 + 720 = 731.
Other ins. 11 + 1080 = 1091.

1941.23 Near Moran, E Jackson Lake, Teton Co, Wyoming. Elev. 6900 feet. July 21, 1941. (R.-R.). Low bank immediately in back of town, corn sage and cow cabbage with bunch tall grass.

Cratypedes, fem. Trim. suffusus, one taken, another heard. Melanoplus sp.? with very long divided subgenital ♂ mexicanus - like cinereus, larval males - presumably one female (larval) taken.

Arth. 6 + 731 = 737.
Other ins. 13 + 1091. = 1104.

1941.24 Along Lewis River below its ~~exit~~ exit from Lewis Lake, Yellowstone National Park, Wyoming. Elev. 7700 feet. July 21, 1941. (R.-R.).

Meadow zone of river with much wet spongy ground.

Tetrix fur, swept in ~~wet~~ areas. No other Orthoptera seen.

Arth. 5 + 737 = 742.
Other ins. 63 + 1104 = 1167.

1941. 25 Near junction of Madison and Gibbon Rivers, Yellowstone National Park. Elev. 6850 feet. July 22, 1941. (R.-R.) In area of tall grass with thistle. Juvs. of annual species of Melanoplus and juvs. of Chorthippus. Camnula adults and juvs. Steiroxys 2 ad. ♀ and numerous juvs.

Orth. 39 + 742 = 781.
Other ins. 23 + 1167 = 1190.

1941.26 Nine miles east of Mammoth Hot Springs, Yellowstone Nat. Park. Elev. 7000 feet. July 22, 1941. (R.-R.)

Open rolling country, with large, tall grass and numerous flowering annuals. No timber close. Most of the O. seen were juvs. Wind very heavy and rain difficult in consequence.

Ageroptedulus 15, 2♀ taken, almost all seen. Brunneria 1 ad. ♀ and annual juvs. taken, all seen. Psolessa 15, 2♀, few others seen. Trimerotropis huttoni one, all seen. Trim. montana type, 1 seen. juvs. Arphia sp. one, all seen. Melanoplus infantilis 15. Other Mel. spp. one ♀ and juvs.

Orth. 17 + 781 = 798.
Other ins. 30 + 1190 = 1220

1941.27 East shore of Jackson Lake, near Moran, Teton Co., Wyoming. Elev. 7000 ft. July 22, 1941. (R. R.) At light at night.

Arach. 0 + 198 = 198.
128 + alcoholics.
Other ins. ~~0~~ + 1220 = 1348

Anabrus stalked with light. 1½ - 2 feet up in shrubs - stridulating

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1941.28 Same locality as 1941.27 July 23, 1941. From molasses traps.

~~Arach. 0 + 198 = 198~~

~~Other ins. not counted~~ Not counted (kept out.)

Principally ends of hairs & antennae.

1941.29 Same locality as 1941.27 but July 23, 1941. Taken in morning about camp after shower. Cow ~~dung~~ in part sage, with lupine and many other annuals flowering. Rain early in AM., anything damp. Few Orthoptera and adults rare. Cratypedes, 1 ad. nymph but lost. Melanoplus infantilis, many few adults. Mel. sp.? Juv. ♂ + ♀ taken. Steiroxys 1 juv. Camnula juvs.

Arach. 10 + 799 = 809
Other ins. 56 + 1348 = 1404.

1941.30 Teton Pass, Teton Mts., Teton Co., Wyoming. Elev. 8423 feet. July 23, 1941. (R. R.)

Hill slope on side of pass with ground cover of wild flowering vines, mullein-like

1941.30 (cont.)

plants and other components. Cratypedes 1 Fahrn, all sum. Short-winged Melanoplus very active, especially males. Abt 1/3 F all sum Fahrn. Some females, particularly, have retained the juvenal condition into the adult stage. Several species short-winged Melanoplus, -- juvenal females. Steiroxys a single nymph in low sum.

Orth. 18 + 809 = 827.
Other ins. 93 + 1404 = 1497.

1941.31 Near Fort Hall, Bannock Co., Idaho. Elev. 4400 feet. July 23, 1941. (R. - R.) Roadside flat with dense brush and tall wheat grass.

Cordillacris - locally numerous. Amphitornus juvenal sum, one Fahrn. Amphitornus juvenal sum, one Fahrn. Cratypedes, one only Fahrn, all sum. Phrenagnus collare, strong flying, quite a few sum, and a limited number Fahrn. Conozoa calcula, locally numerous. Melanoplus foedus, a few. Mel. mexicanus, numerous. Mel. limditichi, sage type, numerous, usually taking refuge in sage. Aeoloplus enigma, about four sum, two Fahrn. Steiroxys, 1 ♂ nymph.

Orth. 47 + 827 = 874.
Other ins. 2 + 1497 = 1499.

1941.32 Near Bmanga Bar, Power Co., Idaho. Alt. 4375-feet. July 23, 1941. (R.-R.) Burnt ash ground, with sun-cured short oat grass.

Trin. pallidipes. Common and exceedingly wary, making its capture exceptionally difficult.

Melampodium sp. In fair numbers, mostly juvs.

Cordaleontias, one only taken. Mus thuegra Rima, seen but missed.

Orth. 4 + 874 = 878.
Lepidoptera 0 + 1499 = 1499.

1941.33 Bench of Snake River at 1000 Springs, Twin Falls Co., Idaho. Elev. 2450 ft. July 24, 1941. (R.-R.)

Short oat-grass, sage, salt-bush like shrub and yellow-flowered composite, on lava soil with scattered lava fragments.

Agenestettix, uncommon, almost all seen taken. Conozoa vallula, local, not common. Trimerotropis pallidipennis, roadside, common. Cordaleontias insignia, local, not common. Leptysma viridis, common in one small area of yellow-flowered composites. Melanoplus mexicanus, common in + general. Mel. bruneri type, juvs. but not common.

1941.33 (cont.)

Aeoloplus, local; taking refuge in sage when pursued.

Veth. 49 + 878 = 927.

Other ins. 5 + 1499 = 1504
+ alk.

1941.34 Five miles S. E. of King Hill, Elmore Co., Idaho. Elev. 2400 feet. July 24, 1941. (R. - R.)

Low sage and short rat-grass, with scattering yellow-flowered composites on top of flat bench.

Autocara elliotti, one taken, all sex. Hesperotettix viridis, numerous in composites. Aidalomotus inigma, 1 taken, all sex. Melanoplus bruneri type, numerous - general, taking refuge chiefly in sage when pursued.

~~Other~~ Veth. 29 + 927 = 956.

Other ins. 6 + 1504 = 1510

1941.35 ~~Five~~ Eight miles S. E. of ~~Burns~~ Huntington, ~~Baker~~ Malheur Co., Oregon. Elev. 2225 feet. July 25, 1941.

Rolling sand & silt drift, usual miles back from the Snake River. Low chiefly sage, a Tetradymia-like shrub, a few composites, a little bunch-grass and much short rat-like grass.

Agenotettix, few. Conozoa wallula,

numerous on bare soil. Trimorphopis caudipennis, few, leaf on some sandy spots. Trim. pallidipennis, very few. Trim. stenua, usual taken, all sum. Despontettix viridis, common, rather general in sage, Fallugia-like plant and other spots as well. Melanoplus foedus, but few seen, no taken. Mel. bowditchi type, abundant, general. Mel. mexicanus, local. Idiostatus, two seen, no taken, stridulating in Fallugia-like plant. √Paropomala, few in grass.

Orth. 108 + 956 = 1064.
Lepidoptera. ? + 1510 = 1517.

1941.36 Elgin, Union Co., Oregon. Elev. 2670 feet. July 25, 1941. (R.-R.)
Hillside slopes of tall grass, some brush grass, thistles and numerous flowering annuals, dotted with clumps & or scattered individual trees of low Crataegus (fruit). Pseudopomala, only few in tall grass, almost all seen taken - 4 ♂, 1 juv. Amphitornus one in low grass, all seen. Chortophaga, uncommon, usual taken. Melanoplus mexicanus type, in moderate numbers. Mel. spp.? Juvs. very abundant. None collected, as too young for determination

1941.36 (cont.)

Hesperotettix sp. 1 ♀ taken, being all seen although extensive search was made for more. Steirodon 2 ad. ♂, 1 ad ♀, 1 immat. ♀ taken, being almost all seen. They frequented grass, tall and short.

Orth. 19 + 1064 = 1083.

Other ins. 49 + 1517 = 1566.

1941.37 Camp 7 Lostine River, above Lostine, Wallowa Mts., Wallowa Co., Oregon. Elev. 5500 feet. July 25, 1941. (Rain.) Cut light and in instances pins set in pine forest.

Orth. 0 + 1083 = 1083.

Other ins. 27 + 1566 = 1593.
+ale.

1941.38 Same loc. as 1941.37, but July 26, 1941. Work done in sunny openings in pine woods, with low cover of grass, wild strawberry, etc. Species of Melanoplus represented only by exceedingly small pins. Chortophaga 1 juv. taken, 1 adult seen but lost. Cratypedes, 1 ad. taken, all seen. Steirodon, 3 immature taken, all seen. Conocephalus, 1 in ground.

Orth. 7 + 1083 = 1090.

Other ins. 5 + 1593 = 1598.

July 16, 1941
(R. & R.)

1941.39 S. E. slope of Blue Mts., 8 m. W. of Elgin, Union Co., Oregon. Elev. 4250 feet - 4600 feet. At base elev. on steep slope in forest of pine. No Carlispatica at all. At higher elev. from small flat, in mist, with tall weeds and a Ratibida-like plant my numerous Tetrix, one, all dun, up in a Ratibida-like plant. Hunt-winged Melanoplus 1♂, 2♀ taken, from close to ground in wild Hyssopus, 1♀ lost, total being all dun. Mel. infantilis type - my brief, all dun taken. Stenobothrus, gravid, ♀ adults in taller growth.

Orth. 32 + 1090 = 1122.
Other ins. 38 + 198 = 1636.

1941.40 Blue Mts. near Spout Springs, elev Elgin, Union Co., Oregon. Elev. 5500 feet. July 16, 1941. (R. & R.)
Mountain meadow with brook at bottom of slope and with adjacent portion of meadow wetter than higher up the slope.
Tetrix, one dun but last. Cannula, adults frequent, juvs - numerous. Melanoplus with male abdomen in part black-tipped (? gladstoni), numerous but local. Melanoplus Hunt-winged, ♀ only taken, 1♂ dun but last.

1941. 40 (cont.)

Steinxys locally abundant, particularly from fam in wild Hordeums. Obl Comm Steinxys (distinct?) are much more active than the grass, and seemed limited to short grass. Imms. of both types are more numerous than adults. One of the males was heard stridulating.

(Arth. 107 + 1122 = 1229.
(other inv. 57) + 1636 = 1693.

1941.41 Dry Creek, between Colfax and Steptoe, Whitman Co., Washington. Elev. 2200 feet. July 27, 1941. (R.-R.)

Small area of native grassland cover on basalt soil with basalt fragments. Cover chiefly tall oat grass, "cow cabbage", thistle and numerous annuals. Also roadside drain with tall weeds.

Amphitorvus few and local, adults more frequent ~~than~~ than juvs. Chorthippus curtipennis in roadside drain. Melanoplus dawsoni common and general, apparently most of the numerous Mel. juvs. being of this species. Mel. bivittatus normal in high weeds in roadside drain. Scudderia 1♂ in short grass. Conocephalus fasciatus one in roadside drain. Steinxys 1♀ in short grass, extensive search failed to reveal others.

Arth. 43 + 1229 = 1272.
Other ins. 39 + 1693 = 1732.

1941.42. Spangle, Spokane Co., Washington.
Elev. 2350 feet. July 27, 1941. (R. + K.)
Short grass and fallen bunch grass on
bare soil under a near stands of open
pine.
Agnesotettix one seen but lost. Aphia pseudo-
nietana, usual, strong flying. Trimerotropis
fontana, locally numerous, not very
active. Circotettix undulatus, a single
individual seen and taken. Melanoplus
dawsoni, locally abundant.
Arth. 32 + 1272 = 1304.
Other ins. 9 + 1732 = 1741.

1941.43 Chattaroy, Spokane Co., Washington.
Elev. 1750 feet. July 27, 1941. (R. + K.)
Short and tall grass, some of bunch character,
and many forbs, with low brush
mats of a chinquapin-like plant, the
whole with scattered pine.
Chorthippus not common. Circotettix
seen but not taken. Cratypedes, one, all
seen. Melanoplus dawsoni, locally
abundant. Dissosteira pictonica type, fair, from edge
of brush mats, bunch grass and short grass.
Arcanistes, several but difficult to locate.

1941.43 (cont.)

Orth. 37 + 1304 = 1341.

Other mis. 55 + 1741 = 1796.

1941.44 Two miles south of Locke, Pend Oreille Co., Washington. Elev. 1975 feet. July 27, 1941. (R. & R.)

Old field conditions with tall grass and scanty expanses. Hieracium canadense 1 ad. + a few juvs. in the bare areas. Cannula sp. Orthoptera. Orchelimum gracile numerous in bushes and tall grass, males stridulating freely.

Orth. 10 + 1341 = 1,351.

Other mis. 27 + 1796 = 1823.

1941.45 Sullivan Lake, Kaniksu Nat. Forest, Pend Oreille Co., Washington. Elev. 2750 feet. July 27, 1941. (R. & R.).

At light and in molasses trap (Latta Coleoptera and ants only).

Orth. 0 + 1357 = 1357.

Other mis. 31 + 1823 = 1854.
+ ale.

1941.46 Three miles S.W. of Tiger, Lower Slope of Selkirk Mts., Pend Oreille Co., Washington. Elev. 2950 feet. July 28, 1941. (R. & R.)

Cut-over forest land, partly burned, with much low coppice growth of deciduous trees and

from saplings of conifers. Lonicera, a plant in flower resembling Epidendrum plant and low heather-like clumps are the main features of the ground cover.

Cannula 1 juv. all seen + taken. Trimerotropis suffusus last few seen and most of these taken. They were stridulating and erratically flying. Melanoplus "altitudinum", three seen, six taken, on ground and in low cover. Melanoplus bivittatus, one dead seen & lost.

Arth. 12 + 1351 = 1363.
Other ins. 10 + 1854 = 1864.

1941.47 Park Rapids, Stevens Co., Washington. Elev. 3000 feet. July 28, 1941. (R. & R.) Forest edge with grassy field, patches of low mat-like vegetation and scattered pine saplings.

Craterpedes gracilis but not common. Trimerotropis suffusus in fair numbers, general. Melanoplus dimidiatus, abundant, juvs. + adults. Bradynotes, 4, all seen, one after long continued search. Low ground with scattered low surface cover.

Arth. 32 + 1363 = 1395.
Other ins. 10 + 1864 = 1874.

1941.48 Kettle Falls, Stevens Co., Washington. Elev. 1300 feet. July 26, 1941. (R. & R.)

Tall grass and low shrubbery among scattered pine.

Conyza ~~Wallula~~ locally numerous. Tri~~m~~orhopis fontana, few. Melampodium ~~d~~ leucanthum in fair numbers, mostly immature.

Arth. 10 + 1395 = 1405.

Other ins. 8 + 1874 = 1882,

1941.49 Gifford, Stevens Co., Washington. Elev. 1875 feet. July 28, 1941. (R. & R.)

In grass and "cow cabbage" under open tall pine.

Trimorhopis fontana, several seen, one taken. T. huffmani, one seen dead on road, none noticed alive. Melampodium leucanthum, abundant.

Arth. 14~~3~~ + 1405 = ~~1473~~ 1419

Other ins. 1 + 1882 = 1883,

1941.50 Seven miles west of Davenport, Lincoln Co., Washington. Elev. 2400 feet. July 29, 1941. (R. & R.) On loess exposure with some of sage, tall grass, thistle, etc. Also an adjacent marsh-like area, also on loess, with tall grass its chief plant cover.

Amphitornus, few. Trimerotropis suffusca one taken, all seen. Circotettix undulatus, one, all seen, taken on bare ground. Melanoplus bowditchi type, few, in sage. Mel. dawsoni, fairly and abundant, mainly adults.

Orth. 13 + 1405 = 1418.
Other ins. 13 + 1882 = 1895.

1941.51 Grand Coulee, 6 m. N.E. of Coulee City, Grant Co., Washington. Elev. 1350 ft. July 29, 1941. (R. & R.)

Sage and short oat grass on bare soil with scattered lava fragments.

Agnotettix few, local, in ground. Conozoa wallula, in ground in open spots, not common. Trimerotropis pallidipennis, roadside. Melanoplus dawsoni few. Mel. bowditchi type, ground in sage.

Orth. 36 + 1418 = 1454.
Other ins. 2 + 1895 = 1897.

1941.52 Columbia River bench, 8 miles N. of Grand Coulee Dam, Okanogan Co., Washington. Elev. 1125 feet. July 29, 1941. (R. & R.)

Bare bench with some sage, tall Andropogon grass, thistle and numerous

other shrubs and annuals, with scattered clumps of hawthorn.

Pseudotsuga one seen, but lost. Extensive search failed to bring more to light. Asphia pseudonictania one taken, all sex. Melanoplus devastator, abundant. Mel. femur-rubrum, local. Mel. bowditchi-type, uncommon in sage. Phoetaliotes nebrascensis, local in Andropogon, adults few. Acanthacris, nymph from low ground and Andropogon.

Orth. 52 + 1454 = 1506.
Other ins. 40 + 1897 = 1937

1941. 53 Ten miles N.W. of Nespelem, ~~Okanogan~~ Okanogan Co., Washington. Elev. 2850 feet. July 29, 1941. (R. & R.)

Relatively lush vegetation of varied character under open tall pine-fir. Asemoplus montanus, 1♂ in low ground cover, close to a fallen pine trunk. Extensive search failed to reveal any other Melanoplus sp.? Juno. No other Orthoptera seen.

Orth. 3 + 1506 = 1509.
Others 34 + 1937 = 1991.

1941.54 Okanogan Hesperis, ~~Okanogan~~ Co., Washington. Elev. 2750 feet. July 29, 1941. (R.-R.) Low cut-over open pine forest with native grass but two ground cover, with many fallen logs.

Trimorphopis fontana and T. suffrutescens, both infrequent. Juv. Transalid-fungus typ?

Orth. 7 + 1509 = 1516.
Lepidoptera 24 + 1991 = 2015.

1941.55 Okanogan, Okanogan Co., Washington. July 29, 1941. (R.-R.) 888 feet.

At light.

Orth. 0 + 1516 = 1516.
Lepidoptera 17 + 2015 = 2032.
+ Tabs.

1941.56 Near Monse, Columbia River, Okanogan Co., Washington. Elev. 900 feet. July 30, 1941. (R.-R.) Rim flat with a soft sage (like white sage), some humic mud, short grass and flowering composites.

Amphitorna fed, one pair taken close together, female undulating attracted attention and was stalked by ground. Male assumed usual feet away and was so located. Agnotettix ground but not common, not true ground. Macrosteles Carolina, one on true ground.

1946.56 (cont'd)

Conoza nallula general on host spots. Trimitrypis pallidipennis abundant on roadside only. Melanoplus dawsoni type fem. Mel. brunneri type, general and common. Mel. packardi, few seen, nine taken. Hesperotettix, one inspot from soft stage, extension search failed to ~~meet~~ locate any others.

Orth. 60 + 1516 = 1576.

Other ins. 5 + 2032 = 2037.

1941.57 Two miles above Methow, Methow River, Okanogan Co., Washington. Elev. 1300 feet. July 30, 1941. (R. & R.)

Open bunch-like area with a soft stage, a bushy dark green chenopodiaceous plant, cow cabbage, tall bunch grass and short oat grass.

Pseudopomala, one female only, in cow cabbage bunch grass, dark made for more instant by success. Amphitornus few scattered on the area, some in base of bunch grass. Aphis pseudonidana general, singly. Metator neadamsi 1♂, 1♀ only, in more open short grass. Conozoa nallula local. Aulocara elliotti one only, all the Melanoplus packardi few, active. Mel. brunneri type, general. Mel. dawsoni rather general. Hesperotettix few, in cow

cabbage, all dem taken. Extensive search was made for more.

Orth. 56 + 1576 = 1632.
Other ins. 5 + 2037 = 2042.

1941. ♂8. Hart's Pass, Cascade Mountains, Whatcom-Okanogan Co., Washington. Elev. 6197 feet. July 30, 1941. (R. & R.)
Hudsonian mountain meadow with mixed plant cover and scattered low shrubs in the openings of fir forest. Much fallen and decayed timber scattered on the meadow. Cannula general but not common, mostly juvs. & adults & stages. Cratypedes one, all dem. Trimerotropis suffusus, seen and heard but not taken. Bradynotes ♂ - ♀ (vix ♂ from ♀ taken) general but scarce, and mostly in the more open places, some close to dead logs, among chips, while others were in tall lush vegetation. Males very good jumpers, females fairly sluggish. Melanoplus short-winged, general and common but ♀♀ more common than ♂♂. Latter very active and making long jumps. Mel. borealis few in more lush areas. Amadrus 1♂, 2♀ (both color phases) in both short cover and tall lush vegetation, but near the ground in all cases. Two males heard stridulating.

1941.58 (cont.)

Stipa sp. leaf in small groups, none adult.
Arth. 78 + 1632 = 1710.
Arthr nis. 37 + 2042 = 2079.

1941.59 Gate Creek, Methow River Valley, abov Mazama, Okanogan Co., Washington. Elev. 2100 feet. July 30, 1941. (R. & R.)
At light (dusky moth) at night, in mixed gras on moist Stipa in brush.
Arth. 18 (ala.) + 1710 = 1728.
Arthr nis. 222 (dry) + 2079 = 2301. +ala.

1941.60 Two miles abov Winthrop, Methow Valley, Okanogan Co., Washington Elev. 1750 feet. July 31, 1941. (R.-R.)
Very flat on valley floor, bare ground and short grass with scattered low shrubs which superficially (?) resemble chamiae (Adenostoma, Amphitornus one Tahun, all dem. Coreopsis nuttallii. Trimerotropis fontana, not uncommon. Melanoplus dawsoni, abundant.
Arth. 18 + 1728 = 1746.
Arthr nis. 20 + 2301 = 2321.

1941.61 Between Lakeside and Winesaps, Chelan Co., Washington. Elev. 1300 feet. July 31, 1941. (R.-R.)
Flat with low grayish-green shrubs and the chamiae-like plant noted for 1941.60, on the

edge of open pine forest.
Amphitamus, one ♀ + last. Conoca
brev, many ♂♂. Melanoplus dawsoni
type, abundant. Mel. brunneri type,
local. Melanoplus packardi a fordus
a little(!?), locally numerous. Steiroxo
2 ♂♂, all seen, in hand.
Birds. 31 + 1746 = 1777.
Other inv. 82 + 2321 = 2323.

1941. 62 — Blewett Pass, Wenatchee Mts.,
Chelan Co., Washington. Elev. 4070 feet.
July 31, 1941. (R.-R.)
Openings on side slopes of pass, in spruce
and pine forest, with short grass, cow
cabbage and thin plants and shrubs.
Nothing at all in the tall timber.
Trimerotropis suffusus, several seen & taken.
" fontana " " " "
Hesperotettix viridis, a single specimen
taken in hay ground. Cratypedes, not un-
common in hay ground, occasionally
flying into bushes when flushed.
Birds. 9 + 1777 = 1786.
Other inv. 19 + 2323 = 2342.

1941.63. Ithaca Canyon, north of Hudley, Kittitas Co., Washington. Elev. 2150 feet. July 31, 1941. (R. - R.).

Shrub and dry ext grass on vitrually bare hills - only scattered bush. Wind very heavy, make almost impossible.

Melanoplus dawsoni only Orthoptera seen.

Orth. 1 + 1786 = 1787.

Other ins. 3 + 2342 = 2345

1941.64 Roza, Kittitas Co., Washington. Elev. 1200 feet. Aug. 1, 1941. (R. + R.)

Very slope of Yakima River gorge through Umtanum Ridge, with short sagebrush, bunchgrass and a few sage.

Trimerotropis pallidipennis, few, nymphs, &.

Hesperotettix, 1 pair from sage, all seen.

Melanoplus dawsoni - type, normal.

Steirexys 1 ad. ♂ beaten from sage, all seen.

Orth. 8 + 1787 = 1795.

Other ins. 4 + 2345 = 2349.

1941.65 Eight miles abm Naches, Naches River, Yakima Co., Washington. Elev. 1650 feet. Aug. 1, 1941. (R. + R.)

Very flat river bottom with short oat grass and scattered sage with sweetclover-flowered

compositus.

Cinclyx mallula, numerous in barren spots. Melanoplus dawsoni?, common. Mel. bowditchi type, local. Hesperotettix, few in composites, 1 ♀ also seen and beat, others taken. Cedalcyonotus, 1 ad. ♀ pinned, all seen.

Orth. 24 + 1795 = 1819.

Other ins. 2 + 2349 = 2351.

1941.66 Two miles above Cliffdell, Naches River, Kittitas Co., Washington. Elev. 2600 feet. August 1, 1941. (R. R.)

In hill pine forest, narrow flat along river bank with bare spots of silt and stones, mats of low ericaceous plant with green berries and taller clumps of sticky leaved shrubs. Camnula, 1 ad. in low grass. Craptypedes, few. Trimerotropis suffusus, few. T. pallidipennis, one in background. Hesperotettix locally numerous in tall grass and low shrubs. Females more numerous than males. Arphia beat and singly, usually in low ericaceous mats.

Orth. 23 + 1819 = 1842.

Other ins. 7 + 2351 = 2358.

(taken just outside Park limits)

1941.67 Chinook Pass, Cascade Mts., east entrance of Mt. Rainier Nat. Park, Wash. Elev. 5440 feet. Aug. 1, 1941. (R.-R.)

Virtual timber-line conditions with firs ascending somewhat higher on surrounding peaks. Open heath-like grass, with two mats of ericaceous shrubs and many flowering annuals, also areas with ground cover a dense spruce a few inches high. Arctomys rainierensis abundant in two cases, chiefly on ground, with about half of those two adults. Males much more numerous and active than females. Melanophus sp.? Two only. Otiorhynchus two only - numerous. Anabrus 1 ad. and a number in instar preceding maturity. Long search made for additional adult individuals.

Orth. 224 + 1842 = 2066.
Other ins. 13 + 2358 = 2371.

1941.68 Yakima Park, Mt. Rainier Nat. Park, Washington. Elev. 6400 feet. Aug. 1, 1941. (Specimens from 6 R.-R.)

Orth. 0 + 2066 = 2066.
Other ins. 32 + 2371 = 2403.

1941.69 Shadow Lake, Yakima Park, Mt. Rainier National Park, Washington. Elev. 6300-6400 feet. August 2, 1941. (R.-R.)

Alpine slopes and semi-flats among firs and white-barked pines. Surface largely small pumice fragments, with cover composed of many species of low shrubs and a multitude of flowering annuals of various colors.

Asemoplus rainierensis, very local in the lushest vegetation, adults not common, juvs. predominating.

Bradynotes local, and usually slightly more ground haunting than Asemoplus. Males near nemoro, juvs. fewer than adults. Melanoplus species, long-winged, few adult, juvs. nemoro, less ground haunting than Bradynotes. Camnula local, mostly immature, in very low cover.

With. 57 + 2066 = 2120.
Others 60 + 2403 = 2463.

1941.70 Yakima Park, Mt. Rainier National Park, Washington. Elev. 6400 feet. Aug. 2, 1941. (R.-R.)

Upon gentle slope, largely of pumice fragments with low grass and flowering annuals with scattered clumps of timber-line firs.

1941.67 Chinook Pass, Cascade Mts., east entrance of Mt. Rainier Nat. Park, Wash. Elev. 5440 feet. Aug. 1, 1941. (R.-R.) (taken just outside Park limits)

Virtual timber-line conditions with fir ascending somewhat higher on surrounding peaks. Open heath-like grass, with low mats of ericaceous shrubs and many flowering annuals; also areas with ground cover of a dwarf spruce a few inches high. Argynnis rainierensis abundant in low cover, chiefly on ground, with about half of those two adults. Males much more numerous and active than females. Melanargia? sp.? Two only. Hesperia Two only - numerous. Anaitis 1 ad. and a number in instar preceding maturity. Long search made for additional adult individuals.

Orth. 224 + 1842 = 2066.
Other ins. 13 + 2358 = 2371.

1941.68 Yakima Park, Mt. Rainier Nat. Park, Washington. Elev. 6400 feet. Aug. 1, 1941. (Specimens from R.-R.)

Orth. 0 + 2066 = 2066.
Other ins. 32 + 2371 = 2403.

1941. 69 Shadow Lake, Yakima Park, Mt. Rainier National Park, Washington. Elev. 6300-6400 feet. August 2, 1941. (R.-R.)

Alpine slopes and semi-flats among firs and white-barked pines. Surface largely small pumice fragments, with cover composed of many species of low shrubs and a multitude of flowering annuals of various colors.

Asemoplus rainierensis, very local in the lushest vegetation, adults not common, juvs. predominating.

Bradynotes local, and usually right near ground hunting than Asemoplus. Males near numerous, juvs. fewer than adults. Melanoplus species, long-winged, few adult, juvs. numerous, less ground hunting than Bradynotes. Arabrus local, mostly immature, in very low cover.

With 54 + 2066 = 2120.
Collection 60 + 2403 = 2463.

1941. 70 Yakima Park, Mt. Rainier National Park, Washington. Elev. 6400 feet. Aug. 2, 1941. (R.-R.)

Upon gentle slope, largely of pumice fragments with low grass and flowering annuals with scattered clumps of timber-line firs.

1941.70 (cont.)

Bradystes numerous, about half juvs.
Melanoplus sp.? Juvs - only a few.
Acrydium juvs. only, numerous.

Orth. 49 + 2120 = 2169.
Other inv. 10 + 2463 = 2473.

1941.71 Along Cowlitz River between Packwood and Randle, Lewis Co., Washington.
Elev. ? Aug. 2, 1941. (R. - R.)
A cut-over burn; no adult Orthoptera
(grass up in hill tracks and tufts under trees -

Orth. 1 + 2169 = 2170.
Other inv. 13 + 2473 = 2486.

1941.72 Two miles south of Everett, Snohomish Co., Washington. Elev. 300 feet. Aug. 5, 1941. (R. - R.).
In cut-over and burned off woodland grass up in tufts and thin stubby. Also fallow ploughed field.
Trimerotropis suffusus, few in both situations.
Melanoplus sp. dem. but rare.

Orth. 2 + 2170 = 2172.
Other inv. 10 + 2486 = 2496.
+ ale.

1941.73 Chuckanut, south of Bellingham, Whatcom Co., Washington. Elev. 50 feet. Aug. 5, 1941. (R. & R.)

In old sand pit grown up with briars and similar vegetation, some bare gravelly ground. Trifinella lancinataria, type males and two females swept from grass and weeds. Tetyx one swept from ground. Limnothopis suffusus, few in sweeping. Melanoplus mexicanus type, numerous in weeds and grasses.

Orth. 21 + 2172 = 2193.
Other ins. 34 + talc. + 2496 = 2530.

1941.74 Austin Pass, Mt. Baker region, Whatcom Co., Washington. Elev. 4500-4630 feet. Aug. 5, 1941. (R. & R.)

Timber line conditions & scattered firs with tops of bare rock and thins covered with dense low heather and huckleberry bushes, with some short brush grass. Melanoplus sp. and numerous jars. in a number of instances. Long search made for Bradynotes & Acemopolus but none seen

Orth. 14 + 2193 = 2207.
Other ins. 24 + 2530 = 2554.

1941. 75 Austin Pass Road on north side, Mt. Baker region, Whatcom Co., Washington. Elev. 3800 feet. August 5, 1941. (R. & R.)
In heavy underbrush and heather interspersed between clumps of firs, beaver dam at
941. 74. Conditions Nudeomian.
Melanoplus alpinus: 1 ♂, adult.
No other Orthoptera found.
Orth. 2 + 2193 = 2195.
Other ins. 1 + 2530 = 2531.

1941. 10. North fork of Nooksack River above Glacier, Whatcom Co., Washington.
Elev. 1800 feet. August 5, 1941. (R. & R.)
At light at night + in meadow grass.
Orth. 0 + 2195 = 2195.
Other ins. 17 + alc. + 2531 = 2548.

1941. 11 Glacier, at junction of Glacier Creek with No. Fork of Nooksack River, Whatcom Co., Washington. Elev. 880 feet. August 6, 1941. (R. & R.)
Clump pasture with forest fringe on edge of forest, and roadside.
Tetrix ornata in pasture. Camnula in pasture but more numerous in roadside. Trimerotropis suffusa, one in roadside. All stem. Melanoplus sp. Nymphs in pasture, adults and grass.

Arth. 35 + 2195 = 2230.
Other nos. 23 + 2548 = 2571.

1941.78 Mount Vernon, Skagit Co., Washington.
Elev. 50 feet. August 6, 1941. (R. & R.)
Pasture overgrown with blackberry, thistle and wild mint. No Orthoptera taken.
Lina Melanoplus rum + host on roadside.

Arth. 0 + 2230 = 2230.
Other nos. 5 + ~~2554~~ 2571 = 2576.

1941.79 Campbell Lake, south of Anacortes, Skagit Co., Washington. Elev. virtually sea level.
Field of tall grass and thistle and roadside weeds. No Orthoptera seen.

Arth. 0 + 2230 = 2230.
Other nos. 21 + 2576 = 2597.

1941.80 Near San de Fuca, Whidby Island, Island Co., Washington. Elev. 150 feet.
Aug. 6, 1941. (R. & R.).
In old field grown up in short fern, holly bushes and tall grass.
Conocephalus local, but numerous in short grass.
Melanoplus (dawsoni, mexicanus + femur-rubrum) Associated, common and general.

Arth. 46 + 2230 = 2276.
Other nos. 7 + 2597 = 2604

1941. 81 Near Blyn, Clallam Co., Washing-
ton. Elev. 200 feet. Aug. 6, 1941. (R.-R.)
In cut-off, mostly trail, and prairie up in dust
form and hunting - much ~~beat~~ fallen
timber under pst.
Trimerotropis suffusca, local and numerous.
Melanoplus mexicanus typus, few.
Orth. 7 + 2276 = 2283.
Other ins. 28 + 2604 = 2632.

1941.82 Hurricane Ridge, above Elwha,
Olympic Mts., Clallam Co., Washington.
Elev. 5000 feet. Aug. 7, 1941. (R.-R.)
Timber-line conditions with scattered
single trees and clumps of spruce.
Ground cover grass, some forbs, and of
forbs, much char-
acter, many flowering annuals and some
areas of broken shale, while other patches
of tall grass were virtually treeless.
Camnula very few juvs. only. Trimerotropis
suffusca, juvenal and numerous. Melanoplus
bivittatus type, few adults, considerable
number of juvs. in juvenal instars.
Hesperotettix, common but all adults, and
juvs., few were females. The juvs. were
much more in evidence than the adults
and careful search produced no
males, adult or juv. The species was active
in short and tall grass.
Orthoptera 107 + 2283 = 2390.
Other ins. 74 + 2632 = 2706.

1941.83 Two miles west of Dairyholm, Clallam Co., Washington. Elev. 1200 feet. Aug. 7, 1941. (R.-R.).
In meadow of tall grass and clover margined by spruce saplings.
Melanoplus bivalis? One adult male + a few juvs all sex. Cannula sex but lost. Trimerotropis suffusus juvs common roadside, sex taken.
Orth. 4 + 2090 = 2394.
Other ins. 30 + 2706 = 2736.

1941.84 Lake Quinault, Grays Harbor Co., Washington. Elev. 225 feet. Aug. 7, 1941. (R.-R.)
At light at night and in motor car.
Orth. 0 + 2394 = 2394.
+ talc.
Other ins. 23 + 2736 = 2759.
+ talc.

1941.85 Two miles south of Neilton, Grays Harbor Co., Washington. Elev. 450 feet. August 8, 1941. (R.-R.)
In cleared area in fir forest, grown up in blackberries and many other bushes and tall grass.
Trimerotropis suffusus one only, in gravelly roadside ditch. Melanoplus sp. 1♀ prob. from fringed vegetation.
Orth. 2 + 2394 = 2396.
Other ins. 12 + 2759 = 2771.

1941.86 Smith Creek, 6 m. N. of Raymond, Pacific Co., Washington. Elev. 100 ft. August 8, 1941. (R. & R.).

Clearing up clearings in fir forest with ndanty logging roads.

No Anthopleura except Tiaresthopsis suffusaus in background of roadside ditch in logging spots.

Arth. 2 + 2390 = 2398

Actin sis. 3 + 2771 = 2774

1941.87 Salt marsh along Willapa River below South Bend, Pacific Co., Washington. Low-tide. Aug. 8, 1941. (R. & R.).

Tall marsh grass with tod, almost hidden Salicornia and clumps of yellow-flowered composites.

Chorthippus adult, adults & juvs.

Conocephalus, 2 species, abundant, adults & juvs. Adults ♀♀ more numerous than adult ♂♂ or juvs. of either sex.

Arth. 67 + 2398 = 2465.

Actin sis. 6 + 2774 = 2780.

1941.88 Two miles east of Cathlamet, Wahkiakum Co., Washington. Elev. 175 feet. Aug. 8, 1941

In low tangled blackberries, clover and grass under scattered tall forest relicts. Limnotrupis puffinus, one on road, all sex. L. fontana, one on road, all sex. Melanoplus femur-rubrum, 1 ♂, all sex. " dawsi type 4 ♂, all sex. Arcyptilus sp. 1 juv., except.

Orth. 10 + 2465 = 2475.

Other ins. 33 + 2780 = 2813.

1941.89 Corbett, Multnomah Co., Oregon. Elev. 450 feet. Aug. 9, 1941. (R. & R.)

Hillside with pasture conditions and wood edge with sweet fern and low grass. Melanoplus femur-rubrum, abundant in meadow, mostly adult. Mel. short-winged, locally numerous near wood edge. Not particularly active, hiding low near grass roots. Scudderia 1 ♀, swept in pasture. Conocephalus, numerous in meadow. Arcyptilus, few, swept.

Orth. 65 + 2475 = 2540.

Other ins. 12 + 2813 = 2825.

1941.90 Near Adell, Hood River Co., Oregon.
Adell
Elev. 1700 feet. Aug. 9, 1941. (R.-R.)
Roadside. One Trim. fontana. Nothing
else seen.
Ortho. 1 + 2040 = 2041.
Other ins. 0 + 2525 = 2525.

1941.91 Near Parkdale, Hood River Co.,
Oregon. Elev. 1800 feet. Aug. 9, 1941.
(R.-R.)
Open tall pine woods with limited
living ground cover, no sandy soil.
Trimerotropis suffusus, fem. Conozoa
vallida, fem. Melanoplus short-winged
sp., locally numerous, nearly all dead
taken, on dead trees and saddles, in
low bushes and resting on dead log.
Melanoplus, 1♂, on ground, very active
jumper.
Ortho. 21 + 2041 = 2062.
Other ins. 3 + 2525 = 2528.

1941.92 Hood River Meadows near Barrett
Pass, Hood River Co., Oregon. Elev.
Aug. 9, 1941. (R.-R.)
Tall, rather wet meadow at head of
Hood River, surrounded by dense spruce
forest. Grass and huckleberry tangles
cover.

Cannula fus, ads. + jiso. All cent.
dem.

Verth. 2 + 2562 = 2564.
Vethamio. 0 + 2828 = 2828.

1941.93. Barlow Camp, Little Zigzag Creek, S. E. slope of Mt. Hood, Clackamas Co., Ore. Elev. 2800 - 2900 feet. Aug. 9, 1941. (R. + R.) Part at light at night, some in molasses jars and Cyphoderius stalked by stridulation or to localized to one or more trees and shaken out. Stridulation was heard in various directions, probably due to a dozen being heard, and one for a distance of approx. 100 yards. A few were extremely ventriloquistic but others made easier to localize. Two males taken.

Verth. 4 + ale. + 2564 = 2568.
Vethamio. 54 + ale. + 2828 = 2882.

1941.94 Between Brightwood and Cherryville, Clackamas Co., Oregon. Elev. 900 feet. Aug. 10, 1941. (R. + R.)
Old field grown up in Tall grass, a few very fine matted grass, trailing blackberries and patches of mint fern, bordered by low, largely deciduous, woods.

1941.94 (cont.)

Nebula, 1 ♂ rept. Cnemophalus, abundant, adults + juvs. Melanoplus femur-rubrum, general and locally abundant, both adults and juvs. Mel. mexicanus, few, at least males. Mel. bivittatus, one only seen and taken. Mel. short-winged, abundant in all associations, but less so near mont. fem. Mostly adults but juvs. still numerous. Not a sturdy jumper for a short-winged species, but as a rule keeping relatively well down in the ground cover, so that deliberate trapping for individuals often failed to lift them. Sexes equally represented by adults.

Orth. 137 + 2568 = 2705.

Other ins. 20 + 2882 = 2902.

1941.95 Willamina, Yamhill Co., Oregon. Elev. approx. 200 feet. Aug. 11, 1941. (R.-R.) Old field along Yamhill River, with mont. fern, thistles and quite tall grass. Trifinula auriculaira, several rept. Melanoplus femur-rubrum, few.

Orth. 5 + 2,705 = 2710.

Other ins. 49 + ab. + 2902 = 2951.

1941.96 Two miles west of Bryan, Lincoln Co., Oregon. Elev. 650 feet. Aug. 11, 1941. (R.-R.)

Meadow spot in fir forest and forest edge, fringed with tall grass, short grass, sword fern, some bracken and thistles.

Chorthippus 1♂, 1♀, swept in tall grass. No other sens. Melanoplus femur-rubrum, few in damp and in thicket fringes. Mel. mexicanus, numerous in forest edge fringes. Conocephalus, numerous in tall grass and composites.

Orth. 27 + 2710 = 2737.

Other ins. 19+ale. + 2951 = 2970.

1941. 9/ Rocky Creek State Park, south of Depoe Bay, Lincoln Co., Oregon. Elev. 70 feet above sea. Aug. 11, 1941. (R. & C.)

Low dense cover of long grass, sword fern and thistle on top of rocky head above Pacific.

Chorthippus, local but not common. All seem adults. Melanoplus sp.? (mexicanus type), local, not common, a few juvs. seen.

Orth. 23 + 2737 = 2760.

Other ins. 32 + 2970 = 3002.

1941.98 Between Coquina Bay and Seal Rock, Lincoln Co., Oregon. Elev. about 100 feet. Aug. 11, 1941. (R. & R.)

Low stone dune-like hills, which apparently had been lowered years ago, with a dune and my dunes ground cover of bent grass and another tough low plant with thick leaves and a purplish dark purple grape-like fruit with an open succulent cup.

Melampyrum sp. (mexicanum group). 2 ♂ and numerous juv. Spicis not at all common and only 6 with. seen.

With. 6 + 2760 = 2766.
Other ins. 11 + 3002 = 3013.

1941.99 Siuslaw, Lane Co., Oregon. Elev. 375 feet. Aug. 12, 1941. (R. & R.)

Area along Lake Creek. Opening in forest with brush about 12 feet high, tall grass, blackberries, grape vines, burdock and thistle, with other annuals and low shrubs. Rather dense cover.

Tetrix 1 supt from grape vines. Trimerotropis suffusus, one only, roadside. Melanoplus carolinus, 1 nymph, roadside, one taken. Melampyrum mexicanum, juvs. numerous, 1 nymph adults.

With. 19 + 2766 = 2785.
Other ins. 24 + 3013 = 3037.

1941.100 Triangle Lake, Lane Co., Ore.
Elev. 1000 feet. Aug. 12, 1941. (R. & R.)
Small clearing in spruce forest with tall grass and rust fern and border of forest with dense thickets of rust fern, spruce saplings, burdock, etc.
Infinda amicularia, 1 rmpt from forest border vegetation. Trimerotropis huffusa few in bare area. Melanoplus mexicanus (more than one species) in clearing, adults numerous, few juvs. Melanoplus 1♂ in low ground cover on thermiae Tarchonotus. Xanthippus 1♂ rmpt from border of clearing. Juv. on rust fern.

Orth. 33 + 2785 = 2818.
Other ins. 17 + 3037 = 3054.

1941.101 Coast Range, 2nd pass east of Blachly, Lane Co., Oregon. Elev. 1174-1190 feet. Aug. 12, 1941. (R. & R.)
Cleared ground with scattered tall firs remaining of the forest which is broken off on each side. Ground cover largely rust fern and tall grass. Trimerotropis fontana numerous in bare ground and in more open spots. Melanoplus mexicanus common. Melanoplus th. cd. species 2♀♀ taken, 2♂♂ seen but lost. Latter by very active and elusive

1941.101 (cont.) [Scudderia 1 nmpt. Neoconocephalus 1 nmpt, ads. + juvs.

Orth. 40 + 2818 = 2858.

Other ins. 2 + 3054 = 3056.

1941.102 Between Thurston and Walterville, Lane Co., Oregon. Elev. 700 feet. Aug. 12, 1941. (R. - R.)

Open hillside with tall grass, low curly matted sun-cured grass and various weeds. Chorthippus fus, very active, hiding in tangled vines & grass clumps. Euphilotes, reddish-winged, one nmpt from low grass. Trimerotropis fontana, an occ apt. Melanoplus sp. ?, very scarce, one ♂, one ♀ + 1 juv. ♀ all sum. taken. Mel. femur-rubrum, numerous. Mel. mexicanus femur (one pair of ♂♂). Conocephalus, few. Conocephalus Neoconocephalus, abundant in tall grass and weeds at foot of slope. Juvs. few. also collected

Orth. 89 + 2858 = 2947.

Other ins. 6 + 3056 = 3062.

1941.103 Blue River, below McKenzie Bridge, Lane Co., Oregon. Elev. 1600 feet. Aug. 12, 1941. (R. - R.)

Glade like opening in mixed forest; ground cover ranging from short grass to tall bushes. deciduous - evergreen

Ortho 1 nmpt from ground. Melanoplus mex. type, local and uncommon.

Arth. 8 + 2941 = 2950.
Other ins. 8 + 3062 = 3070

1941.104 MacKenzie Bridge, Lane Co., Oregon. Elev. (approx.) 1650 feet. August 12, 1941. (R.-R.) Dam in rust.
Lt by light at night unless otherwise specified.
Nedroa stalked with aid of flash, 5 feet up in shrub in rust in bp of tent, stridulating from 5 to 30 seconds duration, sound much resembling that of Scudderia, but of different pitch. Bactus & Cnethophili in molasses traps.
Why cnethophilus running on ground in rust.

Arth. 4 + 2950 = 2959.
Other ins. 40 + 3070 = 3110.

1941.105 Alder Springs, abv Belknap Springs, Lane Co., Oregon. Elev. 2600 ft. Aug. 13, 1941. (R.-R.)
Among thickets of alder, mint fern and numerous other shrubs. Mine open spots with thick low ground cover.
No trace of Podisma hesperus although very full search was made for it.
Tridactylopsis fontana, in mine spots. T. diffusus, ditto. Melanoplus mexicanus, adult in fair nos. Scudderia, 1 juv. imp.

Arth. 26. + 2959 = 2986.
Other ins. 209 + 3110 = 3319!

1941.106 East side of McKenzie Pass, Cascade Mts., ~~Klamath~~ Deschutes Co., Oregon. Elev. 4600 feet. Aug. 13, 1941. (R. & R.)
Alpine meadow with short grass and some damp spots, dissolving grit dry. Tetrix leaf, but not common. No other Orthoptera seen.

Orth. 8 + 2986 = 2994.
Other ins. 9 + 3319 = 3328.

1941.107 Four miles south of Bend, Deschutes Co., Oregon. Elev. 3900 feet. Aug. 13, 1941. (R. & R.)
Cut-over land with scattered small pine remainings. Ground cover chiefly rabbit mud of tonal types, a soft sage-like plant, clumps of low manzanita and a red-twined very stiff bush. Circotettix undulatus, one colony only, very active individuals. Three taken after long chase. Trimerotropis fontana, local. Conozoa wallula few on bare spots.

Orth. 6 + 2994 = 3000.
Other ins. 8 + 3328 = 3336.

1941.108 Base of Lava Butte, 10 m. S. of Bend, Deschutes Co., Oregon. Elev. 4500 feet. Aug. 13, 1941. (R. & R.)

On edge of bare lava flow. Cnicothamnus undulatus, few, with extra adaptation to environment. Trimorphopis pallidipennis, one, all sex.

Orth. 2 + 3000 = 3002.
Other ins. 0 + 3336 = 3336.

1941.109 Near Alfalfa, Deschutes Co., Oregon. Elev. 4200 feet (bench mark). Aug. 13, 1941. (R.-R.)

In area of timbered tall pine land. Soil gravelly with areas of intrusion of small lava fragments. Ground cover almost entirely scattered bunch grass.

Bruchia, only local and always singly, on bare spots. Males very few. Both sexes active. Cratopodes, one only. Trimerotropis fontana, several. Melanoplus mexicanus, 18 all sex.

Orth. 13 + 3002 = 3015.
Other ins. 9 + 3336 = 3345.

1941.110 Paulina Prairie, north of Lapine, Deschutes Co., Oregon. Elev. 4200 feet (bench mark). Aug. 13, 1941. (R.-R.)

Open tall grass dry prairie on gravelly loam. Grass of bunch type but heavier, and closer than usual. Mind strong.

1941.110 (cont.)

Bumelia, 2 spec, 1 other. Cratægus, few. Melanoplus mexicanus, 1 ♂ other, all spec.

Orth. 5 + 3015 = 3020.
Other ins. 1 + 3345 = 3346.

1941.111 Near Paulina Creek, east side of Paulina Mts., Deschutes Co., Oregon. Elev. 4250 ft. Aug. 13, 1941. (R. - R.).

Camp in open pine woods with but little undergrowth. Ground with little cover except dead needles and twigs.

Termites from dead log, material attracted to light and captured in entrance trap.

Orth. 0 + 3020 = 3020.
Other ins. 21 + 3346 + ale. = 3367.

1941.112 Three miles S. of Lapine, Deschutes Co., Oregon. Elev. 4250 feet (b. m.) Aug. 14, 1941. (R. - R.)

Long country of finely broken pumice, bare in places, and in others with moderately tall grass, being openings in lava pine forest.

Bumelia 1 ♀ only, all spec, on bare ground.

Trimerotropis huroniana, two males taken in entrance trap.

Orth. 2 + 3020 = 3022.
Other ins. 0 + 3367 = 3367.

1941. 113 Four miles N. of Prospect, Jackson Co., Oregon. Elev. 1950 feet. Aug. 14, 1941. (R. + R.)
Glades in tall forest of sugar pine and Douglas fir.
Medusula, on hopping on bare ground com. Nothing else.
Arth. 1 + 3022 = 3023.
Other ins. 1 + 3367 = 3368.

1941. 114 Flounce Rock, 7 m. S.W. of Prospect, Upper Rogue River, Jackson Co., Oregon. August 14, 1941. (R. + R.)
Elev. 1100 feet.
Area of tall grass with under mat of low Early Lion-eared yellow grass. Apparently some bar land present from mull of rats. Borders of forest fern and manzanita flanked mixed woods. Faunal conditions strongly suggesting a California locality.
Melanoplus devastator, abundant. Hilaeotettix carolina, a single very pale straw-colored one taken from bare spot on ground. Acanthus 1 juv. unpt.
Arth. 17 + 3023 = 3040.
Other ins. 2 + 3368 = 3370.

1941. 115 Between Gold Hill and Central Point, Jackson Co., Oregon. Elev. 1200 feet. August 15, 1941. (R.-R.) Sun-cured short grass with very low, fluffy-green plants, and other areas with park-like dispersed oaks.

Carex, small sum, one taken, in open.
Trimerotropis pallidipennis, few, small taken, in open. Hippotiza venusta, numerous, very active and strong flying. Melanoplus devastator abundant. Melanoplus sp.-w. spurs, small and not common, in dead oak leaves and short, thin grass under oaks. Oecanthus nigricornis, very few.

Orth. 48 + 3040 = 3088.
Other ins. 2 + 3370 = 3372.

1941. 116 Road summit at Hayes Hill, Josephine Co., Oregon. Elev. 1658 feet (bench mark). August 15, 1941. (R.-R.) Low oak scrub scattered on short sun-cured yellow grass areas, with a few manzanitas and thistles. All on the edge of mixed forest.

Carex, few, only in open, one taken.
Trimerotropis fontana, locally common in open areas in base from

Melanoplus sh. w. common in oak scrub, largely beaten out. Idiostus sp., in oak scrub & hand striduleting and treated by same, & & beaten out of oak scrub.

With. 53 + 3088 = 3141.
Other ins. 4 + 3372 = 3376.

1941. 117 Rough and Ready Creek, 3 m. N. of O'Brien, Josephine Co., Oregon.
Elev. 1350 feet (aver.). Aug. 15, 1941.
(R. & R.)
(Check on Kirby, Ore. typog.
Rolling country with reddish soil and close pavement of various sized reddish to reddish brown stones. Ground cover largely grass and manzanita bushes and a few scrub oak. A few scattered pines. Carried into the land the forest or rather distant hill slopes.
Chimastrypis fontana (? on account of greenish wings), common in more open spots but very wary and difficult to capture. Melanoplus sh. co., in manzanita only, almost all taken by beating them out. Manzanita ranged between 2 to 5 feet in height. Quantities beaten from manzanita.

With. 25 + 3141 = 3166.
Other ins 0 + 3876 = 3876

1941.118 Near Patrick Creek, 16 m. S. of Oregon line, Hlbl Norte Co., California. Elev. 2000 feet (~~1000 feet (aneroid)~~). Aug. 16. 1941. (R.-R.)

Under open tall conifer forest (largely douglas fir - no redwoods); ground cover mostly ferns, huckleberries and a very low plant resembling maiden-hair fern (usually 4-8 inches high), and a few bare spots.

Trimerotropis ~~sp~~ suffusus, few on bare spots. Melanoplus sp. ♂. Local and not common, partial to the areas with maiden-hair fern like plant - very active and not at all easy to capture. Mel. long-w. sp. 2 ♂♂. July.

Orth. 12 + 3166 = 3178.

Orthoptera 1 + 3376 = 3377.

1941.119 Mill Creek Redwoods State Park n. E. of Crescent City, Hlbl Norte Co., Cal. Elev. approx. 500 feet. Aug. 16, 1941. (R.-R.)

Open spot in redwood forest, with bare ground and clumps patches of dense undergrowth and a few ground cover of trailing vines.

Trimerotropis suffusus, very few on bare ground. Melanoplus sp. ♂ (nymph), 1 ♂ in tall tangled ground

conn. Individuals held close to conn and stem jumped long distances. Neduba, locally numerous in some two pound conn.

Orth. 18 + 3178 = 3196.
Other ins. 2 + 3377 = 3379.

1941.120 Four miles S. of Crescent City, Del Norte Co., Cal. Elev. 600 feet (ann.) Aug. 16, 1941. (R.-R.)

Largely tanbark second growth, the whole undergrowth altered by the clearing out of the timber. Other Neduba here but could not be located.

Trimerotropis suffusus, one taken, all stem, on old logging road. No trace of Hunt-winged Melanoplus.

Orth. 1 + 3196 = 3197.
Other ins. 0 + 3379 = 3379.

1941.121 Prairie Creek State Redwoods Park, Humboldt Co., California. Elev. 100 feet. Aug. 16, 1941. (R.-R.)

Dense, unbroken redwood forest, with little sunlight reaching floor. No Orth. noticed at all. Shell-bearing snails from here under dead wood, three not on foliage.

Orth. 0 + 3197 = 3197.
Other ins. 6 + 3379 = 3385.

1941.122 Three miles E. of Blue Lake, Humboldt Co., California. Elev. 900 feet. Aug. 17, 1941. (R. & R.)

Hillside thicket of sun-cured grass and dried specimens of dried flowering annuals in area, which otherwise was called redwood forest. This cover was apparently not due to clearing and undoubtedly was a natural grassland patch.

Chorthippus, locally common. Melanoplus dawsoni abundant, varying greatly in size and depth of color pattern. Mel. sp. Numerous, sticking close to ground & cover. Tinted specimens (all ♀♀) quite pale, juvs. less numerous than adults. Oedipodine juvenile, inept.

Orth. 90 + 3197 = 3287.
Other ins. 15 + 3379 = 3394.

1941.123 Same miles E. of Blue Lake, Humboldt Co., California. Elev. 1112 feet (trail mark). Aug. 17, 1941 (R. & R.)

Grown-up, cut-over coniferous area on slope. Many downy bushes, most fern and true ferns. Ruin terminated creek. Chorthippus juv. Melanoplus dawsoni juv.

Orth. 3 + 3287 = 3290.
Other ins. 6 + 3394 = 3400.

1941. 124 Three miles S. E. of Scotia, Humboldt Co., California. Elev. (chalk Scotia + 50 feet). August 18, 1941. (R. & R.)

In tall grass and berry bushes growing in clearing on edge of redwood forest.

Trimerotropis fontana seen but not taken.

Melanoplus th. w. spinis, numerous adults and juvs. in tall grass and tangles of berry bushes. Scudderia 1 ♀ nymph.

Orth. 36 + 3290 = 3326.

Other ins. 18 + 3400 = 3418.

1941. 125 Eight miles S. E. of Scotia, Upper Bull Creek Redwood Grove, Humboldt Co., Cal. Elev. approx. same as 1941. 124. Aug 18, 1941 (R. & R.)

In dense redwood forest. No Orthoptera except 1 Melanoplus ♀ seen and lost.

Orth. 0 + 3326 = 3326.

Other ins. + + 3418 = 3422.

1941. 126 Near Miranda, Humboldt Co., California. Elev. 400 ft ± (chalk) August 18, 1941. (R. & R.)

In sun-cured grass and dried up flowering annuals, along edge of and also slightly under young and medium-sized redwoods.

Melanoplus devastator, abundant; Mel. th. w. spinis, abundant and active

1941.126 (cont.)

Aythia sp. 1 juv. on ground.
Oceanodroma abundant, rmpt, both adults and juvs.

Both. 72 + 3326 = 3398.
Ocean. 10 + 3422 = 3432.

1941.127 Six miles west of Cummings, Mendocino Co., California. Elev. 400 feet. (duck). August 18, 1941. (R.-R.)

In small flat surrounded by forest composed chiefly of fir. Ground covered grass, a few weeds and dried flowering annuals. Also a few patches of taller bushes.

Cannula, few. Trimerotropis ~~fontana~~ diffusus, few, roadside ditch. Hieroglyphus concolor Melanoplus devastator, common immediately along roadside, many juvs. Melanoplus sp. 1 sp. ♀, common in two cons. Melanoplus constrictus, a few in tamarack made for more, but all seem immature.

Sandhill. 18 + 1 juv. rmpt. Oceanodroma, apparently 2 species, rmpt, not common.

Both. 64 + 3398 = 3462.
Ocean. 2 + 3432 = 3434.

1941.128 Four miles north of Laytonville, ~~Humboldt~~ Mendocino Co., California. Elev. 1900 feet (summit) duck. August 18, 1941. (R.-R.)

In sun-cured tall and short grass, a little tar weed and a few other dried annuals, with scattered manzanita, under pine and oak, with dead pine needles a large component of the soil surface.

Hieracium venosa, few. Melanoplus devastator, general but few. Mel. sp. w. spurs, locally numerous. Melaleuchus sp., 3 species, all rare, in tall grass.

Orth. 21 + 3462 = 3483.

Other ins. 6 + 3434 = 3440.

1941.129 Hopland, Mendocino Co., Cal. Elev. 600 feet (unify). Aug. 19, 1941. (R. & K.)

Area of natural and unaltered cover of tall sun-cured grass and various weeds, including thistle, on hillside with much exposed crumbling micaceous rock.

Trimerotropis pallidipennis, one, roadside. Hieracium venosa, general. Melanoplus devastator, very abundant, with numerous color types and a very great individual variation in size, particularly in females. Mel. sp. w. sp., very few and local. Cnocephalus gracilis but not common, with two color phases, the brown patterning matching that of the sun-cured grass. Clinopleura, 18 only, in tall

1941.129 (cont.)

grass - careful search failed to reveal more. Alcanthus, in local pumps, rmpt.

Orth. 93 + 3483 = 3576.
Other ins. 4 + 3440 = 3444.

1941.130 Alma, Los Gatos Creek, Santa Clara Co., California. Elev. 600 feet (Jenny chart). Aug. 20, 1941. (R. & R.).

Roadside edge of sun-cured grass with a few weeds.

Trimerotropis pallidipennis, ne, roadside. Melanoplus dawsoni, abundant. Melanoplus sp.; few and local, search particularly made for more. Scudderia, 1 rmpt. Chloealtis locally numerous, lurking down near grass roots, and also among actin and pumpful pumpers. Melanoplus less frequently seen than PP. Encoptolophus sordidus, both color types taken, the green preponderately rare. Alcanthus abundant, chiefly in weeds.

Orth. 197 + 3576 = 3773.
Other ins. 3 + 3444 = 3447.

1941.131 Holy City, Santa Cruz Mts. above Alma, Santa Clara Co., California. Elev. 1450 feet. August 20, 1941. (R. & R.)

Mowed roadside edge of small redwoods

with bordering ground cover of mud and tall grass (sun-cured).
Trinerotropis pallidipennis seen but not taken, roadside. Melanoplus sh. w. sp., local in ground cover. Scudderia few, nymph, adults & juvs. Oecanthus few, nymph.

Orth. 18 + 3773 = 3791.
Other ins. 7 + 3447 = 3454.

1941.132 Hecker Pass, Coast Range, Santa Cruz - Santa Clara Co., California. Elev. 1600 ft. am'mid (check on U.S.F.S. Capitola & San Juan Bautista sheets). Aug. 10, 1941. (R. + R.).

In shoulder high tan mud with bare ground cover & sweet fern, berry bushes and prickly oak, along the edge + partly under oaks and redwoods. Directly under the oaks there were only dead oak leaves on the ground.

Trimerotropis fratrua, on bare ground. Melanoplus sh. w., general but locally common in all situations. Scudderia juvs. only, nymph. Platycleis californica, 2 ♂♂ nymph from grass and mint from along edge of woods. Oecanthus nymph, chiefly from tall mud.

Orth. 172 + 3791 = 3863.
Other ins. 11 + 3454 = 3465.

1941.133 Pacheco Pass, Diablo Range, Santa Clara-Merced Co., California. Elev. 1350 (just west of summit) feet. August 20, 1941. (R.-R.)

In tall sun-cured oat grass and a few dried weeds in roadside ditch, scattered oaks on adjacent slopes. Mid stamp. Eupsophus 1 spot, careful search failed to reveal others. Melanoplus devastator, common.

Ventr. 23 + 3863 = 3886.
Ventrs. ins. 4 + 3465 = 3469.

1941.134 Volta, Merced Co., California. Elev. (ditch) approx. 100-150 feet. Aug. 21, 1941. (R.-R.)

In native cover of San Joaquin Valley near slough, apparently to some degree alkaline. Bare ground in some places, Salicornia and a short curly sun-cured grass the main components of the low ground cover.

Juv. Truxalids numerous, mostly two color types. Cannula numerous and general, even on bare mud surface. Trimerotropis pallidipennis, few in bare areas. Melanoplus devastator general but not common. Short-winged melanoplid, numerous in thicket long-winged phase also taken: 1 ♀.

low cover, thriving over dense.

West. 48 + 3886 = 3934.

Other ins. 0 + 3469 = 3469.

1941. 135 Near San Joaquin River between Crow's Landing and Turlock, Stanislaus Co., Cal. Aug. 21, 1941. (R.-R.).

In native conditions with dense and close low cover of Distichlis, curly sun-cured grass and tops of thin spots of Salix, usually dried, mudo. Cover very dense close to ground. Lycosa helluella 1 impt. Agelena uncommon, deep in cover and hard to raise. Conga roadside, numerous. Cannula few but general. Hisaronia venusta, roadside, few. Hesperotettix local in taller mudo, but hiding in the two grass mats when pursued. Difficult to secure. Melanoplus devastator, general but not abundant. Short-winged melanoplus, general and common but not easy to capture, hiding in grass, Tropidulus sp., 1 only, all dem. few macropterous individuals apparently. Mecaphesa few juvs. + 1 ad., impt.

West. 74 + 3934 = 4008.

Other ins. 1 + 3469 = 3470.

1941.136 Near Knights Ferry, Stanislaus Co., California. Elev. 350 feet (aner.) Aug. 21, 1941. (R. - R.)

In roadside fall farmed, tall yellow grass and a branching burr weed, similar sun-cured.

Nothing but Melampodium dioxotatum, abundant and often of large size.

Vasc. 17 + 4008 = 4025.

Vasc. cns. 16 + 3470 = 3486.

1941.137 Between Jamma and Soulsbyville, Tuolumne Co., California. Elev. 2850 feet (topogr.) Aug. 21, 1941. (R. - R.)

In sun-cured tall dry grass with many scattered clumps of poison oak Rhus.

Nothing but Melampodium dioxotatum, numerous, and 1 Amaranthus, impt.

Vasc. 9 + 4025 = 4034.

Vasc. cns. 4 + 3486 = 3490.

1941.138 Confidence, Tuolumne Co., Cal. Elev. 4300 feet (topogr.). Aug. 21, 1941. (R. - R.)

In low, very close mixture consist a finely divided leaf plant under tall grass.

Nothing except a few Melampodium dioxotatum + Amaranthus impt.

Vasc. 4 + 4034 = 4038.

Vasc. cns. 0 + 3490 = 3490.

1941.139 Wardanelles, Middle Fk of Stanislaus River, Tuolumne Co., Calif. Elev. 6050 feet. Aug. 21, 1941. (R.-R.) At light at night & in molasses jars.

Orth. 0 + 4038 = 4038.

Other ins. 26 + 3490 = 3516.
+ ale.

1941.140 Upper Woodman Creek, west side of Sonora Pass, Sierra Nevada Mts., Tuolumne Co., California. Elev. 9400 feet. Aug. 22, 1941. (R.-R.).

Woodmanian meadow with gentle slopes of brown rock and coarse gravel, chiefly granitic, along stream. Lush meadow area in Fall yellow-flowered composite and similar plants.

Brunnia tumuli, on brown rock surface. Cammula fera, 1 ad. in lush meadow vegt., juvs. on rock surface. Craspedes on brown rock surface. Trimerotropis suffusus, fed on brown rocks. Circotettix maculatus, common on brown rocks. Most of the material taken tumuli in character. In the genus a pre and mah flies, and not at all wary. We saw no sustained aerial dances. Bradynotes very local on brown rocks, some mating, jumping actively and some at times hiding under rocks. Orth. 86 + 4038 = 4124.

Other ins. 5 + 3516 = 3521.

1941.141 Leavitt Creek, east side of Sonora ~~Peak~~ Pass, Sierra Nevada Mts., Mono Co., Cal. Elev. 8000 feet. (imp.) Aug. 22, 1941. (R.-R.)

Meadow ~~with~~ ~~the~~ bordered with open pine, just below timber line.

Tettigidae rare but in meadow ground. Cannula in both vegetation. ~~C~~ Cratypedes in ditto. Trimerotropis pallidipennis numerous on bare spots. Melanoplus mexicanus typus few, either ad. or juv.

Orth. 16 + 4124 = 4140.
Other ins. 4 + 3521 = 3525.

1941.142 Colville, Antelope Valley, Mono Co., California. Elev. 5200 feet. Aug. 22, 1941. (R.-R.)

Sage dotted flat at foot of juniper covered slope above west Walker River. Most of ground bare.

Conozoa numerous, general. Trimerotropis obscurus type, uncommon on bare spots. Melanoplus sp. A. sage species, numerous but very active and hard to capture in imagines, taking refuge deep in sage and with hoppers. Melanoplus, sp. Mel. sage b.-sp. Dissosteira, one at base of sagebrush. Camnula 1 in sage, all nymphs.

Orth. 31 + 4140 = 4171.
Other ins. 1 + 3525 = 3526.

1941. 143 Hill slopes & Washoe Mts. bordering Truckee River, 7 m. E. of Sparks, Washoe Co., Nevada. Elev. 4500 feet. Aug. 23, 1941. (R. & R.)

Slope with sparse short sun-cured oat grass and bushes of shad-scale (Atriplex), Grayia and Sarcobatus, plus other types of similar high desert shrubbery.

Amphitornus on trodden out of Atriplex. Lepus, three seen, two taken, on broken rock pavement. Agamotettix, few, hiding in bushes when pursued. Trimerotropis pallidipennis, few in burn spots. T. thomasi, one in bare sunfare, all seen. Circotettix thalassinus, several seen, one taken on ground. Melophilus a few seen, taking refuge in shad-scale, etc., but although several were trailed all eluded me.

Orth. 10 + 4171 = 4181.
Other ins. 0 + 3526 = 3526.

1941. 144 Alkali flat 10 m. N. E. of Fernley, Lyon Co., Nevada. Elev. 4000 feet. Aug. 23, 1941. (R. & R.)

Alkali flat with low hillocks of crusted adobe, bent bushes of salt bush and Salicornia. Much of ground damp and boggy.

Orth. 0 + 4181 = 4181.
Other ins. 11 + 3526 = 3537.

1941. 145 - Near Reno, Churchill Co., Nevada. Elev. 4100 feet. Aug. 23, 1941. (R.-R.)
Low bushes on shingle of tertiary lava fragments, in plants about nearly bare; some shad-scale (Atriplex) and chrysothamnus shrubs not over a foot high.

Eremitalpa numinsula in bushes, skirmishing all about. Exceedingly active and very difficult to capture after located by stridulation. One half hour of steady work resulted in but two captured, although many more were seen. The incredible speed of these beasts, which cannot be located very well by sight, as can the rats & the species living in taller bushes, makes it virtually impossible to follow them with the eye, while their ability to jump in any direction almost instantly makes it out of the question to anticipate their next move. Tripodomys rosaceus very few, one pair taken in shingle. Perognathus bleachleyi, rarely, on shingle which its coloration closely resembled. P. pallidipennis one on shingle. Cardiopleus, rare but three seen and one taken in same type of bushes as Eremitalpa.

Verb. 8 + 4181 = 4189.
Other nos. 0 + 3537 = 3537.

1941. 14b Rye Patch Station, Pershing Co., Nevada. Elev. 4300 feet. Aug. 23, 1941. (R. - R.).

In tall corn of Sarcobatus, Artemisia and similar shrubs with numerous yellow-flowered composites.

Trimerotropis bilobata, mated pair and one taken - spurs pink in cage.
T. pallidipennis, few. T. caerulipennis (?? two spurs) few on bare spots.
Melanoplus cinereus common in cage and also in composites. Acrolophus less numerous than M. c. and chiefly in rocky shrubs. Hesperotettix in composites and in cage, as many as three taken from one bushes, again numerous & the composites would apparently have more. Decanthus, one swept from composite.

Verb. 41 + 4189 = 4230.
Other nos. 5 + 3537 = 3542

1941.147 Between Winnemucca and Golconda, Humboldt Co., Nevada. Elev. 4500 feet. Aug. 24, 1941. (R. - R.) Sage and short cut grass (sun-cured) on dry silt.

Agnatettix unimaculata, one taken, hiding in sage. Trimerotropis pallidipennis, uncommon. T. caerulipennis, numerous, active and strong flying, lighting on silt. Melanoplus femur-rubrum and bivittatus, few in low sage. M. cinereus, common in sage.

Orth. 26 + 4230 = 4256.
Other ins. 7 + 3542 = 3549.

1941.148 Golconda Road Summit, 6 m. E. of Golconda, Humboldt Co., Nevada. Elev. 5154 feet. Aug. 24, 1941. (R. & R.)

Low surface cover of scattered shadscale and other probably chenopodiaceous shrubs in silt, with areas of finely broken stone shingle of various sizes.

Melanoplus bilineatus, numerous. Trimerotropis pallidipennis, general but not numerous. T. caerulipennis in fair numbers chiefly on silt; strong flying. T. bilobata common, occasionally taking refuge in shrubs. Aeoloplides c. strepitus few, general in habitats.

Blue-legged Trimitopsis, one single individual in thicket.
Aeoloplus, one empty frass shad-scale.
Melanoplus cinereus, frass in thickets.

Orth. (38 + 4257) = 4295.
Other ins. 0 + 3549 = 3549.

1941-149 Six to eight miles E. of Battle Mountain, Lander Co., Nevada. Elev. 4450 feet. August 24, 1941. (R. & R.)

Two areas examined several miles apart but of similar elevation. One with shad-scale, Sarcobatus, chenopodaceous shrubs and salt brush; the other with much the same elements plus tall yellow-flowered composites and rank roadside undergrowth.

Agnotettix, few, hiding in low yellow-flowered composites. Cuerna, local and common on tilt at second point. Trimotopsis cuneolipennis, common on tilt. T. pallidipennis on tilt road. Aeoloplus numerous in shrubs both high and low. Melanoplus bivittatus common in roadside undergrowth. Melanoplus cinereus stem but one taken. M. infernalis type, few, roadside undergrowth. Hesperotettix viridis on salt brush, usually clinging to a main stem, but also found on top of terminal twig. Males are actively stridulating, by which they are located.

Orth. 48 + 4295 = 4343.
Other ins. 12 + 3549 = 3561.

1941. 150 East side of Emigrant Pass, Eureka Co., Nevada. Elev. 5700 feet. Aug. 24, 1941. (R. - R.)

Tall sage and low and high yellow-flowered composites in relatively hilly soil.

Hitanemtica, annual running in low ground. Amphitornus, at base of sage. Agnemotettix nanus. Trimerotropis pallidipennis few. T. gracilis common, often alighting in sage. T. caerulipennis, abundant on ~~hilly ground~~, action. Melanoplus cinereus, few, in sage. M. mexicanus typ. femur and common. Hesperotettix common in the low yellow-flowered composites, and also in sage. Acoloplus few, one taken.

Orth. 57 + 4343 = 4394.
Other ins. 17 + 3561 = 3578.

Circotettix undulatus, nymphs on hilly ground.

1941. 151 Mountain, 9 miles E. of Elko, Elko Co., Nevada. Elev. 5155 feet. Aug. 24, 1941. (R. - R.)

Tall sage and equally tall yellow-flowered composites on hilt.

Trimerotropis pallidipennis, rare adult. Melanoplus cinereus few, in sage. Hesperotettix, nymphs in composites. Acoloplus taken from composites.

Orth. 17 + 4394 = 4411.
Other ins. 3 + 3578 = 3581.

1941.152 Moor, road crossing of Independence Range, 7-9 miles east of Wells, Elko Co., Nevada. Elev. 6200 feet. Aug. 25, 1941. (R.-R.)

Juniper and pinyon covered hillslope with ground cover of tall oat grass, low sage, mountain mahogany ("juniper") and few yellow-flowered composites.

Agnotettix few and local. Trimerotropis pallidipennis, roadside. T. gracilis, few on bare ground. Melanoplus mexicanus, few, roadside. M. cinereus, few, host from tall sage. Acrolophus, few, host? Hesperotettix few, in composites. Anabrus adjacent to roadside, singly, in tall grass clumps and in burdock. All malto and located by stridulation.

With. 28 + 4411 = 4439.
Other ins. 6 + 3581 = 3587.

1941.153 West side of Pequop Range, Elko Co., Nevada. Elev. 6300-6500 feet. Aug. 25, 1941. (R.-R.)

Male Anabrus stridulating along road in tall dry coarse bunch grass along a drain, on a bare rock, in yellow-flowered composite and in sage. Apt to drop and play dead when startled.

With. 6 + 4439 = 4445.
Other ins. 1 + 3587 = 3588.

1941. 154 Pequop Summit, Pequop Range, Elko Co., Nevada. Elev. 6980 feet. Aug. 25, 1941. (R. & R.)

Open hill slope with rocky ground cover of yellow-flowered composites, soft sage, true sage, mountain mahogany and other low shrubs. No juniper or pinyon in immediate neighborhood, nearest nearly a mile down slope.

Cuphea pseudosimetana, one in bare ground. Trimerotropis pallidipennis few. Aeoloplides, a few heard, one taken. Melanoplus mexicanus type, few. Anabrus heard 3, one taken in mtn. mahogany.

Arth. 7 + 4445 = 4452.
Other ins. 4 + 3588 = 3592.

1941. 155 Wendover, Elko Co., Nevada. Elevation, 4300 feet. Aug. 25, 1941. (R. & R.)

On low bench on east side of Pilot Range immediately west of town, and underlying the first salt lake desert. Covering low and mat-like and thin chenopodiaceous shrubs, as well as a very few pinyon mountain or at least suggesting Fallugia paradoxa; in one place a fine stone fragment pavement or "desert".

Trimerotropis pallidipennis, few. T. citrina common, very active and

strong flying. T. globata few, one taken. T. fridyspicis with frons lego, numerous almost as active as T. stramma. Melampsa cinereus, one input from shad scale. Aeoloplus, one from Fallugia-like plant. Noctiid, 1 ♀ input from latter.

Orth. 30 + 4452 = 4482.

Other ins. 5 + 3592 = 3597.

1941. 156 Eastern edge of Great Salt Lake Desert, 4 m. E. of Knolls, Tooele Co., Utah. Elev. ^ approximately 4000 feet. Aug. 25, 1941. (R. & R.)

On whitish salt impregnated dry silt with scattered low shad-scale and a few related shrubs, all stunted and showing the sign of the habitat. The glare of the light at this locality was pronounced and the vegetation showed much discoloration toward a reddish tone.

Nerotmema L. riley anum, one only, all fem. Trimerotropis caerulipennis, few. Aeoloplus few, resting on ground between bushes a longer time than usual.

Orth. 10 + 4482 = 4492.

Other ins. 1 + 3597 = 3598.

1941. 157 Slope S of Cedar Mts., west of Wells, Tooele Co., Utah. Elev. 4400 feet. August 25, 1941. (R. - R.)

Hill slope with pinyon and juniper-scrub, tumble-weed and similar shrubs. Trimorphopis caerulipennis few and very active and wary. T. pallidipennis few. Neoplus two sp., very shy - none captured.

With. 4 + 4492 = 4496.

Other ins. 0 + 3598 = 3598.

1941. 158 Gorgonza, Summit Co., Utah. Elev. 7300 feet. Aug. 26, 1941. (R. - R.)

Hill slope with sage, low oak scrub and low aspen, with tall yellow-flowered composites.

Cratypedes few, active. Trimorphopis fratrima numerous and very active. T. pallidipennis, one. Hesperotettix local and scarce in composites. Melanoplus mexicanus mid. in tall grass, in nearly every spot. M. cincticeps type, in sage and in oak, numerous. Dactiid, 10 jumped from oak scrub. Another heard in oak, and numerous search was made for this and others. Acanthus rapt from oak scrub.

With. 24 + 4496 = 4520.

Other ins. 21 + 3598 = 3619.

1941.159 Hamicks Canyon, S. E. of Kamas, Wasatch Co., Utah. Elev. 6000 feet. Aug. 26, 1941. (R.-R.) stream canon,

Alu silky thingle with Conj trumbleweed and Aphria pseudonietania, fair. Rhaosteria carolina fair, active. Trimerotropis fontana, fair. T. stenura, locally numerous. Melanoplus mexicanus type, abundant. M. packardii, one only, near roadside in trumbleweed. Schistocerca lobrata, one in trumbleweed. heavier brush along adjacent

Orth. 26 + 4520 = 4546.
Orthoptera. 1 + 3619 = 3620.

1941.160 Head of Hamicks Canyon, between Kamas and Shadscamy Valley, Wasatch Co., Utah. Elev. 7950 feet. Aug. 26, 1941. (R.-R.)

In low soft sage and fair stand of grass and open aspen forest.

Camnula, one in roadside weeds. Cratypedes, one only at edge of aspens. Trimerotropis suffusus, fair. T. suffusus few. Melanoplus dodgei ?, 2 seen in ground cover under aspens. Very active jumpers and difficult to locate and capture. Hadrieid, 1 in mullein plant, resting on upper surface of leaf at its base. open

Orth. 10 + 4546 = 4556.
Orthoptera. 14 + 3620 = 3634.

1941.161 Edge of brush above Current Creek near Fruitland, Duchesne Co., Utah. Elev. 6800 feet. Aug. 26, 1941. (R.-R.)

On top of low red sandstone escarpment above stream, Bare silt with areas of bunch- and sage.

Hirasetina carolina, one. Trimerotropis pallidipennis, one. T. latifasciata one, all stem. Crotypedes one, all stem. Melanoplus mexicanus, numerous.

Orth. 8 + 4556 = 4564.

Other ins. 0 + 3634 = 3634.

1941.162 Ten miles E. of W. of Duchesne, Duchesne Co., Utah. Elev. 6950 feet. Aug. 26, 1941. (R.-R.)

On juniper and pinyon covered ridge, with ground cover of sage, yellow-flowered composites and some bunchgrass.

Arphia pseudonietana few, all seen taken. Trimerotropis pallidipennis seen but not taken. T. caerulipennis one seen and taken, no others noticed. T. gracilis one taken, all stem. Melanoplus mexicanus type, few. M. cinereus one only.

Orth. 6 + 4564 = 4570.

Other ins. 28 + 3634 = 3662.

1941. 163 Myton, Duchesne Co., Utah.
Elev. 4960 feet. Aug. 26, 1941. (R. & C.)
Duchesne River bottomland, with
more or less bare silt, damp in places and all
encrusted to some extent with alkali.
Plant cover consisting here and there of salt brush
and tall coarse bunch grass.

Orphulella few in grass along roadside
depressions. Hippotettix carolina numerous
and active. Ophraogenus, one seen & taken,
no others noticed. Trimerotropis salsfasciata
numerous on bare silt but very wary,
active and in consequence difficult
to capture. Melanoplus mexicanus type
locally numerous. M. femur-rubrum
one only. Acrolophus sp. in salt brush but eluded
capture. Acanthacris ruficornis
Orth. 21 + 4570 = 4591.
Other ins. 5 + 3662 = 3667.

1941. 164 Uinta River, 1 m. N. of Fort Duchesne,
Uinta Co., Utah. Elev. 5000 feet. Aug. 27, 1941.
(R. & R.).

River bottom with low trees, apparently
hackberry, tall yellow-flowered composites,
Rudbeckia and Helianthus, with
numerous other bottom-land mesic plants.
Orphulella few, ruficornis. Cyphia pseudo-
virtanea local. Hippotettix carolina

1941.164 (cont.)

numerous on roadside but not taken.
Sphaeraguna collaris few and local on bare spots. Melanoplus mexicanus typ. abundant. M. femur-rubrum type, less common, but both in thrushing and low ground cover. Hesperotettix one few, two seen and one taken, roadside. Acanthus numerous, impt food a number of different plants.

With. 73 + 4591 = 4664.
Other ins. 17 + 3667 = 3684.

1941.165 Asphalt Ridge, S.W. of Vernal, Uinta Co., Utah. Elev. 5600 feet. Aug. 27, 1941. (R. + P.)

Ash reddish silt weathering from underlying strata in encircling ledges. Ground cover chiefly Sarcobatus, a few sage, yellow-flowered composites and tumbleweed.

Agnotettix few but lost. Trimerotropis pallidipennis few and local. T. bilobata ground, numerous. T. strenua, ground and numerous. Melanoplus cinereus type, local.

With. 27 + 4664 = 4691.
Other ins. 3 + 3684 = 3687.

1941.166 Three miles E. of Sand Springs, Moffat Co., Colorado. Elev. 5925 feet. Aug. 27, 1941. (R.-R.)

Cover sage and yellow-flowered composites ~~and~~ with a little short-scale. Rolling hill slopes. Wind very high.

Agenotettix unadorned, one taken. Trimerotropis pallidipennis immune, nadeida and no transporto. T. bilobata immune no transporto. Melanoplus cinereus few, about sage. Hesperotettix, two seen and one taken, apparently scarce.

Orth. 9 + 4691 = 4700.
Other ins. 4 + 3687 = 3691.

1941.167 Elk Springs, Moffat Co., Colorado. Elev. 6430 feet. Aug. 27, 1941. (R.-R.)

Rolling high mesa, with sun-cured oat grass and scattered low sage. Wind very high, making work almost impossible.

Agenotettix three taken. Trimerotropis pallidipennis few. Xerotomma t. rileyanum one only. Melanoplus cinereus few.

Orth. 10 + 4700 = 4710.
Other ins. 2 + 3691 = 3693

1941.168 Between Hay and Craig, Moffat Co., Colorado. Elev. 6700 feet. Aug. 27, 1941. (R.-R.)

Rolling high hills with sage, yellow-flowered composites and low prickly pear. Wind very high, and rain exceedingly difficult.

Euphrosia pseudonictana one, all worn. Sphaeromeria, in fair number, funeral. Melanoplus cinereus common. M. foedus type, few. Melanoplus spp. few. Hesperotettix viridis, one in cacti. Arcyptera few, nymph.

Orth. 40 + 4710 = 4750.
Other ins. 25 + 3693 = 3718.

1941.169 Between Brotherton and Steamboat Springs, Routt Co., Colorado. Elev. 6750 feet. Aug. 27, 1941. (R.-R.)

Rather steep hillside with heavy cover of tall sage and yellow-flowered composites, and roadside, at foot of same, with short growth of spiky grass.

Chortophaga, one, roadside. Cannula few in spiky grass. Melanoplus bivittatus common, roadside. M. mexicanus femur. Arcyptera nymph from sage and composites.

Orth. 18 + 4750 = 4768.
Other ins. 15 + 3718 = 3733.

1941. 170 Mat side of Rabbit Ears Pass, ?? Routt & Grand Co (see topographic map), Colorado. Elev. 8800 feet. Aug. 28, 1941. (R.-R.)

Gentle slope with two ground cover of annuals at the edge of a near spruce forest.

Trimerotropis suffusus few, one taken. Melanoplus mexicanus type, few. M. marshalli? numerous, on ground & in the low cover. Actin and clusia.

Orth. 22 + 4768 = 4790.

Other ins. 24 + 3733 = 3757.

1941. 171 Summit of Rabbit Ears Pass, Routt & Grand Co (see topographic map), Colorado. Elev. 9680 feet. Aug. 28, 1941. (R. & R.)

Hudsonian open subtimberline flat on train immediately along side of summit of pass. Spruce on nearby slopes. Ground cover low annuals with close trailing berry vines. Evidence of recent killing frost was seen.

Chorthippus one seen and taken. Camnula one. Cyphia one type, one swept from ground. Trimerotropis suffusus few, one taken. Melanoplus marshalli? numerous on ground & in low cover.

Orth. 22 + 4790 = 4812.

Other ins. 14 + 3757 = 3771.

1941.172 Upper valley of Muddy Creek below Muddy Pass, Park Range, Grand Co., Colorado. Elev. 8300 feet. Aug. 28, 1941. (R.-R.).

Mountain hillside with sage, coarse grass and a tall mullen-like plant with dried blooms topping the single stalk. Chortophaga communis. Camnula pellucida numerous. Arphoreutes c. carlinianus quite common but not common, strong flying. Melanoplus mex. typus numerous. M. plumbeus phase in fair numbers, chiefly - the mullen-like plant. Melanoplus sp.? 3 females, apparently distinct, taken with the mex. typus indivs. We could not find the male!

Orth. 57 + 4812 = 4869.
Others inc. 8 + ale. + 3771 = 3779.

1941.173 Near Stillwater, Grand Co., Colorado. Elev.? Irrate in typ. hopo. Aug. 28, 1941. (R.-R.)

Slopes with sage. Nothing but Melanoplus mex. typus, and 1 ♀ another phase of the same, and Camnula pellucida, Arphoreutes carlinianus, Chortophaga communis but not taken.

Orth. 2 + 4869 = 4871.
Others inc. 0 + 3779 = 3779.

1941.174 Milner Pass, Continental Divide, Rocky Mtn. Nat. Park, Colorado. Elevation 10759-10770 feet. Aug. 28, 1941. (R.-R.)

On gradually low ridges in pass, with very low alpine ground mats but a few inches high. Arctic alpine conditions. All timber some hundreds of feet below.

Melanoplus marshalli ? few. Aeropedellus 1♂, 1♀ in ground. All seen of both taken. Individuals lifted but little, as it was late in the afternoon and chilly.

Orth. 7 + 4871 = 4878.
Other ins. 7 + 3779 = 3786.

1941.175 Slopes of low ridges above Fall River Pass, Rocky Mountain National Park, Colorado. Elev. 12200 feet. Aug. 28, 1941. (R.-R.).

Rounded arctic alpine ridges, with surface of broken stone of various sizes, and with a very low and sparse ground cover of the mat-like shrubs, a few inches high, found in such situations.

Aeropedellus 1♂ and a few juvs. Melanoplus marshalli ? 1♂. All seen of both. Killing frosts may have already greatly depleted the population.

Orth. 5 + 4878 = 4883.
Other ins. 1 + 3786 = 3787.

1941. 176 Louviers, Douglas Co., Colorado.
Elev. 5675 feet. Aug. 29, 1941. (R.-R.)

Low hills of Great Plains condition, with very dry cat grass, another very short grass and many patches of low prickly pear. Also a little sandy wash.

Merriamia m. mackenzii local and scarce in grass along wash. Habitostoma 1 ♀ only, on ground. Cubicara elliotti, 1 ♀ only, on ground. Agyneta tuta. not common. Linyphia pinx. a few on ground. Sphasagnum collare few. S. aequale few, Mutaba pardalinus one, all seen. Trimerotropis agrestis one only, in grass along sandy wash. Hadrotettix nuncupatus 1 ♀, tempt fauna touch grass. Melanoplus mexicanus typus, abundant. M. foedus very few. M. floridensis, few. M. bivittatus one seen not best. M. occidentalis one ♂, all noticed. Acanthus few, tempt.

With. 61 + 4883 = 4944.
Other sps. 36 + 3787 = 3823.

1941. 177 Near Falcon, 15 m. N.E. of Colorado Springs, El Paso Co., Colorado. Elev. ~~6500~~ 6700 feet. Aug. 29, 1941. (R.-R.)

On rolling High Plains, with juniper in distance on some of the ridges. Low short grass with a very little shinnery,

some prickly pear and tall brush grass.
Acrolophitus, one adult seen. Condilacris
locally numerous. Agenestettix numerous.
Aulocara, one adult seen. Spharagemon
[illegible] 1 final. Brachystola, 1 final, thirty,
a few dead ones, partly eaten either by
rodents or birds, one also seen.
Hypochlora alba, one pair sparse white
edge. Acrolophus, locally common.
Melanoplus mexicanus type in fair
number. M. occidentalis few. M.
foedus, numerous. M. fluviatilis,
common. M. lakinus few. Paropsula
locally numerous in base of brush
grass. Circotettix, 1 impt.

Orth. 142 + 4944 = 5086.
Other ins 19 + 3823 = 3842.

1941. 178 Betw. Arroya and Wild Horse,
Cheyenne Co., Colorado. Elev. approx.
4500 feet. Aug. 30, 1941. (R. & R.)
Short grass Great Plains (High Plains)
condition with areas of sunflowers and
tall weeds, largely dead and dried.
Many bare spots.
Hippiscus ocreati, one ♂ 1 juv. impt from
roadside drain tall weeds. Hippia few.
Philibostroma local but not common.
Agenestettix very few. Boopedon 1-2

1941. 178 (cont.) (Cordillera, fav
all sem. Aulacaria brac and scare.
Heliantha 1 only, all dem, on trip out.
Cuphea pseudomicrantha sem but bot.
Xanthisma coahuilense sm, all dem. ✗
Hieracium h. haydenii, annual in trip out.
Krameria Parvifolia Trimorphopsis laticinta
common, flying well but not difficult
to stalk. Hedyotis brac. Cheilanthes
fav. Hesperostipa spartea, roadside
drain only. Mentzelia albicaulis 1 to along road, all dem
in tall mud. M. dispersa ditto.
M. mexicana type, funnel. M. lobata,
fav. M. pectinata, common. M. humilis
latifolia, fav. M. nuda on talus,
all sem. Pediomelum tenuiflorum, leaf
1 pair ♂ in prickly pear. Cenchrus
(grass), restricted to one short grass
single. Acanthus, impt, funnel.
Sphaeralcea, common.

Orth. 87 + 5086 = 5173.
Other mis. 34 + 3842 = 3876.

1941. 179 Sorrento, Cheyenne Co., Colorado.
Elev. about 4400 feet. Aug. 30, 1941.
(R. & R.)
Brachystola on road.
Grasshoppers feeding on flies dead
grasshoppers Chilled flies.

Orth. 4 + 5173 = 5177.
Other mis. 0 + 3876 = 3876.

1941. 180 Kansas side of Colorado-Kansas State line, west of Weskan Wallace Co., Kansas. Elev. 4100 ft. Aug. 30, 1941. (R.-R.).

Great Plains condition of tall dry sunflowers and other weeds; tall dried curly grass, some fair patches of short grass and there of nearly bare soil.

Munroa squarrosa Borderia 1%, all sum.
Bouteloua gracilis 1%, along old field road.
Brachystelma a small number, three taken
mighty fine type of sunflower plants.
Nasturtium Aspidotheca spinosum, local and
not common in sandy weeds. Atriplex
Lactuca Ludwigia alternifolia one on old road, all sum.
Melanoplus differentialis abundant
M. bivittatus, abundant. M. mexicanus
type, abundant. M. packardi, comm.
M. fasciatus, common. M. calcinus, few. Leg. K. W.
Phoetaliotes 18, all sum. Orchelimum
vulgare 18, on tops of corn stalks in
corn field - three heard. Oecanthus fasciatus
only, nympt.

Orth. 88 + 5177 = 5265.
Other ins. 39 + 3876 = 3915.

9180

1942

1942.1 Sem mile N. E. of Mt. Irving, Montgomery Co., Kentucky. Elev. 1200 feet (aneroid) August 12, 1942. (V. A. G. R.)

Small meadow spot under trees, sandy edge. Largely disturbed condition. Chiefly trapping.

Acrotrichis abundant, adults + juvs.
Agathidium latipennis. Few, juvs.
Amblycorypha oblongifolia. One rept from mud.
Anisochromopha two stem - one taken.
Atrichopteryx Microtettix. One rept.
Arthropleura 13
Other insects. 15

1942.2 Sutton Ranch and Meadow, Laurel Co., Kentucky. Elev. 1250 feet (aneroid). August 12, 1942. (V. A. G. R.).

Roadside edge of deciduous woodland with wet area & spring seepage from limestone strata.

Anisochromopha. Few - roadside. One taken.
Aphaenogaster treatae. 1 alt dem - taken in woodland undergrowth
Anaphis xanthoptera. 1 juv. - roadside edge of woodland, alt dem.
Chortophaga Very small juv. rept.
Ischnoptera. Small juvs. rept.
Melanoplus punctulatus. Small, alt dem. roadside edge of woodland.

Melanoplus thom.-mingod. 2 ♂ 1 ♀ all
dem, taken in tangles on woodside
edge & woodland.
Allgidea 1 impt in vent area.
Nemobius 4 " " " "
Amblycorypha rotund. 1 ♀ impt in
woodland undergrowth.
Oecanthus latipennis, 1 juv. impt
woodside bushes.
Phylloscirtus 1 impt, ditto.
Orth. 24 + 13 = 37.
Other ins. 3 + 15 = 18.

1942. 3 - 4 miles W. of Barton, Shelby
Co., Kentucky. Elev. 1100 feet. Aug. 13, 1942,
(V. A. G. R.)
In and along edge of oak, maple and
hickory woodland, undergrowth largely
smilax.
Nemobius 1 juv. impt from ground in woods.
Sphagnum thin. Dead in dead litter
in woods.
Melanoplus sp. crimped. 1 juv. impt. along
woodedge.
Neoconocephalus 1 juv. impt.
Scapteriscus. juv. impt in woods.
Orth. 8 + 3 ♂ = 45.
Other ins. 13 + 18 = 31.

1942.4 Near Pellico Creek, McCreary Co., Kentucky / Elev. 950 feet. Aug. 13, 1942. (V.A.G.R.).

In pine and oak woods on slope, undergrowth heavy.

Tetragidea sp. (nullicum?) One nymph from dead leaf litter on woodland floor.

Chorthippus viridiasciata Uhler 1 male juv. in rank growth in grub up orchard alongside the woods.

Scirtula. 1 male juv. in ditto.

Phrangmus fasciatus Uhler One nymph in woods but Melanoplus mex. 1 ♀ in orchard grass.

" sp. ninged sp. ?. 1 female juv. in woods.

Amblycorypha oblongifolia One ♂ in woods undergrowth, flitting.

Scudderia sp. 1 ♀ flying in woods.

Neoconocephalus sp. 1 juv. nymph in orchard.

Orth. 12 + 45 = 57.

Other ins. 3 + 31 = 34

1942.5 Glenmary, Scott Co., Tennessee. Elev. 1350 feet. Aug. 13, 1942. (V.A.G.R.).

In oak and pine woods on ground. Nothing except 1 Orphulella pelidna and 1 male juv. Melanoplus. Hand net and sweeping nothing else.

Orth. 3 + 57 = 60.

Other ins. 0 + 34 = 34.

1942.6 Sandridge, Morgan Co., Tenn.
Elev. 1500 ft. Aug. 13, 1942. (V. A. G. R.)
Scrub pine woods with a few oaks,
and much oak brush undergrowth.
Nothing except 1 ad. Sphagnum
Wulfianum - juv. Melanoplus.
Birds 3 + 60 = 63.
Other vts. 3 + 34 = 37.

1942.7 Rockwood, Roane Co., Tennessee.
Elev. 850 ft. Aug. 13, 1942. (V. A. G. R.)
Open, rather tall pine and oak woods,
ground cover largely dead needles and
leaves.
Nomotilis nupt from ground.
Sphagnum Wulfianum. Une-all sum.
Oxyechpha exigua ne supt from undergrowth.
Birds 4 + 63 = 67.
Other vts. 5 + 37 = 42.

1942.8 Creston, Cumberland Co., Tenn.
Elev. 1900 ft. Aug. 14, 1942. (V. A. G. R.)
In deciduous woods, chiefly oak, with
heavy undergrowth. Dead leaf ground
cover badly washed and packed by
recent rains.
Only adults - Sphagnum Wulfianum in moss-
along edge. Mel. sp., Euphoria - Chort. juv.
Birds. 6 + 63 = 69
Other vts. 7 + 37 = 43

1942.7 Same plan as 1942.8 but in town, more scrubby oak with more purely oak scrub undergrowth.

Chloealtis 1 ♂, all worn and limited associations for more. On undergrowth foliage.

Cyrtophyllus very small juv. Tympanophora very small juvs. Tympt.

Melanoplus lucidus 1 ♂ 1 ♀ adults. Fav. juv. on ground.

Micrygilus 1 juv. Tympt.

Phyllocyrtus 1 ad. Tympt.

Orth. 10 + 69 = 79.

Orthoptera 10 + 43 = 53.

1942.10 Three miles S.E. of Monterey, Putnam Co., Tennessee. Elev. 1,950 feet. Aug. 14, 1942. (V.A.G.R.)

In low scrub oak woodland with sunny slopes with ground partly exposed - an iron impregnated conglomerate. Undergrowth rather open, largely oak scrub.

Nomotettix - Neoliotes Tympt from ground.

Orphulia saussurina. 2 juvs. on ground.

" sp. 1 very small juv. Tympt.

Melanoplus luridus 1 ad. ♀ 1 juv. on ground.

Mel. impudicus 1 ♂, all worn, on ground.

Melanoplus sh. wingd. 1 ad ♀, all stages, in pound. Entile ranch made for D.T.
Neconocephalus larval juvs. nymph.
Orth. 13 + 79 = 92.
Other ins. 4 + 53 = 57.

1942.11 Baxter, Putnam Co., Tenn.
Elev. 900 feet. Aug. 14, 1942. (V.A.G., R.)
In dense scrub oaks under with much short grass. Undergrowth bare & trailex.
Diapheromera juvs. nymph from undergrowth.
Tettigidea - ad. juvs. ? - Dead, in pound.
Phaneroptera falc. Local in more sunny spots.
Melanoplus sp. juvs. in low corn & in pound.
Eotettix ?? 1 juv. in low corn-hunted land, without success, for adults.
Pale lateral line on pronotum very prominent in life. Whole face upper part of eye covered with mosaic of pale pattern.
Amblycorypha uhleri. larval nymph from undergrowth.
Insignellus 1 juv. in pound.
Orth. 17 + 92 = 109.
Other ins. 12 + 57 = 69.

1942.12 Five miles W. of Rome, Smith Co., Tennessee. Elev. 400 feet. Aug. 14, 1942. (V. A. G. R.)

In dense deciduous woodland with a few red cedars on exposed limestone slopes.

Rhiaphorosoma jun. numerous but not taken.
Polygnathus sp. 1 spec.
Pyrrhula admirabilis 1 ad. ♂ roadside.
Dipsiacus nigrescens 1 ad. ♂ in woodland.
Melanoplus sp. 2 nymphs only, on edge of woods among (under) undergrowth.

Birds. 7 + 109 = 116.
Other ins. 1 + 69 = 70

1942.13 7 miles N.W. of Nashville, Davidson Co., Tenn. Elev. 600 feet. Aug. 15, 1942. (V. A. G. R.)

In tall deciduous woodland, largely oak. Undergrowth largely red cedar.

Syrbula 1 juv. roadside.
Dissosteira Carolina 2 in open edge of woods.
Rhiaphorosoma 1 nymph on road, one taken.
Melanoplus 14 sp. 11 ♂♂ 3 ♀♀. Numerous juvs. in woods.
Melanoplus minor? 1 ♂ only, wood edge.
Orchelimum 1 juv. only, 1 adult in woods.

Birds. 13 + 116 = 129.
Other ins. 7 + 70 = 77.

1942.14 S. E. of Thomasville, Montgomery Co., Tenn. Elev. 400 feet. Aug. 15, 1942. (V. A. G. R.)

In patch of deciduous woodland, open beneath with little cover.

Chortophaga sp. 1 nym, not taken.

Nyopiecus 1 ♂ in grass on wood edge.

Orphia Xanthoptera in open on wood edge.

Melanoplus sp. 1 juv. in woods.

Ceuthus sp. 1 nymph.

Orth. 4 + 129 = 133.

Other ins. 2 + 77 = 79.

1942.15. Hopkinsville, Christian Co., Tenn. Elev. 400 feet. Aug. 15, 1942. (V. A. G. R.)

Roadside edge of cornfields, with tall grass under.

Scyllina sp.

Chortophaga sp. both color phases.

Schistocerca americana. Two adults (all seen in that stage) and numerous immatures in both nymphal stages.

Melanoplus minor; 1 nymph.

Melanoplus sp. 1 nymph.

Conocephalus strictus. Mainly immature, these numerous, but adults

Orth. 18 + 133 = 151.

Other ins. 6 + 74 = 80

1942.16 Russellville, Logan Co., Kentucky
Elev. 550 feet. Aug. 15, 1942. (V.A.G.R.)
In scrubby oak woods with many red cedars, low undergrowth rather open. Almost nothing.
Lophaagnum billi 1 all stem, in woods.
Melanoplus sp. 1 juv. " "
Orth. 2 + 151 = 153.
Other ins. 2 + 80 = 82

1942.17 Buffalo, Larue Co., Kentucky.
Elev. 650 feet. August 16, 1942. (V.A.G.R.)
In roadside ditch with clover and tall weeds.
Ischnoptera americana. Two adults. Juvs. in various instars and green and brown color phases, abundant.
Melanoplus bivittatus. Single female seen and taken.
Melanoplus sp. Juvs. only, apparently of M. femur-rubrum, none taken.
Orchelimum vulgare. One adult taken, all seen.
Conocephalus strictus. Common.
Orth. 21 + 153 = 174.
Other ins. 11 + 82 = 93.

1942.18 Four miles N.W. of New Haven, Nelson Co., Kentucky. Elev. 400 feet. Aug. 16, 1942. (V.A.G.R.)
In pine and oak trees on low ridge, some steep slopes. Undergrowth oak scrub, huckleberry, sassafras and smilax.

Lpharagmus billi: 1 male, all sexes in woods.
Melanoplus viridipes: few, in woods.
" morsei? 2 adult ♂♂ and a number of juvs. on ground or in low undergrowth.
Melanoplus sp. 1 male juv. only.
Orchelimum minor? One ♀ swept from oak scrub undergrowth.
Amblycorypha rotundifolia: One ♀ swept from oak scrub
Camptonotus 1♀ ditto
Anaxipha 1 male "
Neoconocephalus juvs. "

Orth. 22 + 174 = 196.
Orthoptera 2 + 93 = 95.

1942.19 – 2 miles N.E. of Fairview, Fleming Co., Kentucky. Elevation 600 feet. August 17, 1942. (V.A.G.R.)
In roadside grass and weeds.
Tetrix sp. 1 wgt from ground, roadside.
Tettigidea nullisimus 1 ditto
Melanoplus sp.? Juvs. numerous.
Conocephalus strictus Juvs. numerous, one fair adults one of latter taken.
Oecanthus. Juvs wgt from weeds.
Orth. 10 + 196 = 206.
Other ins. 2 + 95 = 97.

1942.20 – One mile N. of Russellville, Highland Co., Ohio. Elev. 700 feet. Aug. 17, 1942. (V.A.G.R.)
In road edge of tangled and heavy undergrowth of deciduous woodland with weedy field on opposite side along creek hollow.
Diapheromera 2 juvs. wgt.
Tetrix 1 wgt.
Melanoplus sp. Small juvs. only
" morosi? One juv.
Chortophaga One juv. in woods grass.
Neoconocephalus 1♀ wgt roadside.
Conocephalus nigropleurum Juvs. numerous roadside – within edge of woods in

undergrowth and mud. No adults seen.

Napaeus 3 rupt from foliage of overhanging branches along road edge.

Succinea rupt from mud.

Cth. 29 + 206 = 235.
Other ins. + 97 = 102.

1942.21 Two miles E. of Rushville, Fairfield Co., Ohio. Elev. 750 feet. Aug. 18, 1942 (V.A.G.R.)

In deciduous woodland with original undergrowth replaced by tall weeds and grass.

Discoastus on mud. surface.

Nesobius dull spires swept from grass in zone.

Nesobius red-headed, in roadside drain.

Tetrigids on ground in woodland.

Cth. 10 + 235 = 245.
Other ins. 31 + 102 = 133.

1942.22 Near Wintersect (or Winchester) about 12 m. N.E. of Zanesville, Co., Ohio. Elev. 575 feet. Aug. 18, 1942. (V.A.G.R.)

Hillside old field, with goldenrod and blackberry bushes, leading up to

edge & very thick low woods. No Orth. at all except following:
Scudderia, two specs., in field.
Conocephalus 1 specimen, rept in ditto.
Oecanthus, rept in ditto.
Orth 6 + 245 = 251.
Other ins, 2 + 133 = 135.

1942. 23 - Three miles N. E. of Ennis City, Butler Co., Pa. Elev. 850 feet. Aug. 19, 1942. (V.A.G.R.) In deciduous woods with moderate undergrowth. All Orth. 1 Oecanthus, 1 ad. - 1 juv. Conocephalus, 1 juv. Camptonotus and 1 Neoconocephalus all rept. - Nothing else seen.
Orth. 6 + 251 = 257.
Other ins. 21 + 135 = 156.

1942.24 Near Sligo, Clarion Co., Penna. Elev. 1200 feet. Aug. 19, 1942. (V.A.G.R.) In deciduous midland, rather open with low undergrowth.
No Orthoptera except following:
Oecanthus 2 ad 1 Neoconocephalus rept from undergrowth. 1 ~~Xiphidium~~ Neoconocephalus rept from ground.
Orth. 4 + 257 = 261.
Other ins. 4 + 156 = 160.

1942.25 One mile W. of Reynoldsville, Jefferson Co., Pa. Elev. 1800 feet. Aug. 19, 1942. (V.A.G.R.)

In hemlock, maple and wild cherry woodland with rhododendron, laurel & viburnum in its undergrowth components. No Orthopt. at all.

Orth. 0 + 261 = 261.

Other ins 9 + 160 = 169.

1942.26 Elliott Park, Penna. State Forest, Clearfield Co., Pa. Elev. 2300 feet. Aug. 20, 1942. (V.A.G.R.)

In second growth deciduous forest - chiefly oak + maple. No Orth. at all.

Orth. 0 + 261 = 261.

Other ins. + + 169 = 173.

1942.27. Near West Decatur, Clearfield Co., Pa. Elev. 1400 feet. Aug. 20, 1942. (V.A.G.R.)

In grown-up old field with golden rod, and many saplings of aspen and clumps of hazel. Mt in wet. Only Orthoptera:

Chorthippus 1 juv. all dun

Melanoplus sp.? 1 juv. impt

" femur-rubrum, 1 adult roadside.

Dissosteira impt - juv. also dun.

Orth. 10 + 261 = 271.

Other ins. 38 + 173 = 211.

1942. 30 Bttrs. The Narrows and Woodward, Centre Co., Pa. Elev. 1300 feet. Aug. 20, 1942. (J.A.G.R.).

In deciduous forest, tramping undergr. - ground conn. No Lith. except 1 pair of Diaphtheromera.

Lith. 2 + 32) = 329

Others ins. 4 + 2 = 259

1945

1945.1 Six miles No. of Petersburg, Chesterfield Co., Virginia. (approx. 3 m. S. E. of Chester). August 4, 1945. (J.A.G.R.)
In mixed deciduous woods of oak, tulip, magnolia, hickory, etc., with undergrowth of Sassafras + oak scrub. Also along edge of ~~road~~ same woodland in roadside (coarse grass + low bushes (some flatter oak scrub). Nothing adult in woods.
At edge in open Ephemagenum bilii few and in grass Leptodactylla ad. + hybrida adults + juv. Eentettix juv. in grass strip, Melanoplus juvs. chiefly in woodland no pronotal in low cover. Nomotettix nymph from ground in open.

Meth. = 16
Other orders = 0.

1945.2 Eight miles S. of Petersburg, Prince George Co., Virginia. Aug. 4, 1945. (J.A.G.R.)
In old field growing up in oak + pine, with oak + pine scrub + sumac + sumac from scrub. Two things adult. Much flooded recently.
Amblytropidia - Orthop. nymph.
Nomotettix nymph from moist ground.
Eentettix juv. " " — "
Ephemagenum bilii final adults - 1 Female.
Orphulella juvs., also of Eentettix, Melanoplus + Schistocerca.
Meth. 13 + 16 = 29.
Other in /

1945.3 Sharpsburg, Nash Co., North Carolina. Aug. 5, 1945. J.A.R. In open short-leaf and loblolly pine woods with oak and sweet gum; undergrowth oak scrub, some wire grass. fall hwy, etc., a little sweet fern.

Hygrophorus 1 juv.; rept in woods. Mycetinis Taking rinkside pine sand & grass. Typhula juv only - roadside - Clythulella very few adult, roadside - Melanoleuca, related to minus 1 & 4, taken separately, on ground about oak scrub under pine - no other sum. Mel. prob. tenuis. Juv. only, in Schizophyllum - only very small juvs. seen - not taken. Hapalthea - Clavaria, juvs. of both in woods. Cercanthus all juvs. - in woods. Cyclopotilum - all juvs. rept in woods.

Earth. 27 + 29 = 56
Other mis. 0 + 1 = 1

1945.4 2 m. S. of Mendenhall, Wayne Co., North Carolina. Aug. 5, 1945. J.A.R. In oak - loblolly pine woods on slope, with undergr. of oak & scrub, sassafras, cane. Moist at bottom of slope. Roadside edge open with living and dead sweet fern.

Typhula juvs. only, roadside. Clythulella adv. - juvs. roadside open, few.

1945.4 (cont.)

Hippiscus phoeniceptinus 1 tallied ♀ at roadside edge in pine-mutfern. Amblystropidea fav pine. roadside. Melampsalis pub. luridus. pine. only, - in woods. Microcentrum 1 ♂ erupt pine oak scrub at wood edge. Acanthacris pine. only in oak scrub. Neoconocephalus one at road edge.

Orth. 12 + 56 = 68.
Other ins 1 + 1 = 2

1945.5 Near Rose Hill, Duplin Co., North Carolina. Aug. 5, 1945. J.A.G.R.

In and along roadside edge of mainly pine short-leaf pine woods, & my fav long-leaf pine, latter saddlings chiefly! One place low with lycopodium but no standing water. Underbrush oak scrub, sweet fern, fall hay, a little wire grass, etc.

All Tettigids - Neotettix, Nomotettix - Tettig. appar. present in low spot.

Hyllotrupes - one adult ♂ seen only. Melanoplus picta - one adult ♂ seen - lost, 2 pine. Taken, road edge.

Amblystropidea, all pine. present.

Hippiscus Chloroscelis Neoconocephalus pine. road edge.

Melampsalis & Dissosteira pine, all pine. in woods.

Melanoplus bivittatus: All juvs.
In woods. Adult. 1 juv. in same
meadow mating, in woods.
Adult. 1 ♂ in low spot.
Dissosteira Carolina. Juvs. in open: Phaleria
1 ad. in open. Dissosteira in open
woods.

Both.	31 +	68 = 99
Others ad.	9 +	1 = 10

1945.6. Six miles S.W. of Wilmington,
Brunswick Co., North Carolina. (About
3 m. S.E. of Leland.) Aug. 6, 1945. J.K.G.K.
In open cut-over pine-land, from up knee
in tall hay, huckleberry, blackberry and
climbing briar, with two magnolia bushes.
One sandy old road was damp. with Lycopodium
and bog plants.

Stagnomantis Juvs. in open.
Paxilla Two in damp spots.
Ittigidea One in damp spots.
Mermiria bivittata 1 ♂ 1 ♀, all stages, in
tall hay bushes.
Amblytropidia Juvs only. in open.
Clinocephalus 6 juvs. in open.
Orphula - one, probably, 1 juv. in wet
wet ditch.
Melanoplus sp. Juvs. in open.
Trimerotropis 1 ♀ in open, 1 juv. gall hay.
Juvs. of Orchelimum, Conocephalus &

1945:6 (cont.)

Neoconnophalus sum but not taken.
Cyloptilum all nymph, chiefly from
full lung.
Nanisticus 1 juv. nymph.
Work. 21 + 99 = 120
Others inc. 8 + 10 = 18.

1945:7 Near Bolivia, Brunswick Co., North Carolina. Aug. 6, 1945. J. Hyatt.
In opened up long leaf pine woods on knoll - large trees taken out; underbrush largely oak scrub + most pine - hay. Also in roadside grass + weeds.
Tettigids - all in bare sandy ground.
Syrbula fem. ad. + juv.
Orchelimum juv. only in woods + on roadside
Clinocephalus Few juv. in woods. in grass.
Scharagnum billi. Few in woods.
Melanoplus sp. juv. only in woods.
" " 1 ad. roadside.
Dendrotica nymph from oak scrub.
Odontoxiphidium 1 ad. edge of woods.
Phyllopsyllus adult + juv. Nymph
fem 1 male in woods.
Work. 27 + 120 = 147.
Others inc. 3 + 18 = 21.

1945.8 Two miles W. of Prissett, Brunswick Co., North Carolina. Aug. 6, 1945. J.A.G.R.
In sand-prong long-leaf pine woods, open with much wire grass + mat gum, scrub, also tall long + pine seedlings. Wet in place and along roadside ditch.
Stagnomantis jun. inspt.
Tgrbula. fem, roadside, adults. pins.
Thomisida picta. In fair nos. adults wild and free flying, going up in trees sometimes. Both pins. + adults fem.
Uaphantella fem.
Clinocephalus. Two adults ♂pins. in ent spts.
Amblytropidia pins. only.
Arphia xanthoptera. Two along road.
Melanoplus attenuatus? One adult ♂ + pin. in woods.
Eritettix Two in ent spts.
Paroxya One adult in ent spt.
Orphulella pelidna. 1♂ in ent spt.

Orth.	27	+ 147	=	174
Other ins	3	+ 21	=	24

1945.9. Myrtle Beach, Horry Co., South Carolina. Aug. 6, 1945. J.A.G.R.
In dense but low oak and pine woods on coastal dunes. Undergr. smilax, bay and numerous shrubs.
Little work.
Pharagmatobia Hilli Thaxter, two taken.
Scudderia 1 in oak shrub.
Melanoplus short-winged sp. 14
nupt from ground cover.
Orth. 4 + 174 = 178
Other sis. 2 + 24 = 26

1945.10 Two miles S.W. of Myrtle Beach, Horry Co., South Carolina. Aug. 7, 1945. J.A.G.R.
Burn-cut-over and burned pine woods, with much undergrowth dead + fire killed.
Tettigids, all roadside. Almost nothing else.
Clinocephalus - adults + juvs, roadside.
Orphulella juvs. tame, roadside
Chortophaga 1 ad. roadside.
Hesperotettix 1 juv. nupt.
Melanoplus sp. Juv. nupt.
Orth. 13 + 178 = 191
Other sis. 2 + 26 = 28

1945.11 Four miles S.W. of Murrel's Inlet, Georgetown Co., South Carolina. Aug. 7, 1945. J.A.G.K.

On roadside shoulder of long pale burn, tall grass, weeds, etc., and in low long-leaf pine saplings. Almost nothing under pine.

Aristida roadside.
Pandacophora " All clear roadside shoulder.

Vertb. 8 + 191 = 199
Other ins. 5 + 28 = 33

1945.12 Five miles S.E. of Andrews, Georgetown Co, South Carolina. Aug. 7, 1945. J.A.G.K.

In cut-over Long-leaf pine, roads, with pitcher plants Aristida running, but little else. Nothing here worth noting.

Vertb. 1 + 199 = 200.
Other ins. 5 + 33 = 38.

1945.13 Six miles S.E. of Bryan's Crossroads, Williamsburg Co., South Carolina. Aug. 7, 1945. J.A.G.K.

In cut-over Long-leaf pine woods, much opened up, undergrowth vine tracs, other cane grass, much oak scrub and little pale burn.

1945. 13 (cont.)

Neuronia picta. Two mun road.
Hyrtula traeal in woods.
Tumbletropidia Jms. few
Crephia xanthoptera Freg. in woods.
Schistocera obscura ♂ 1♀ - all teneral - in oak scrub.
Melanoplus bivittatus Jul., adults.
Dissosteira prat. group. Three ♀♀ ♀, all teneral - oak scrub. Males not evident, even after long search. Seemed to be present only in one small area.
Tumbleumpha ubleri. Several ♀♀ + 1♂ 1 all teneral - taken from oak scrub.
Cyrtophyllum concavum Alerth. 18 + 200 ≤ 218.
Other mis. 1 + 38 = 39

1945. 14 Two miles W. of Bonneau, Berkeley Co., South Carolina. Aug. 7, 1945. J. N. G.
In mixed long-leaf pine woods with characteristic undergrowth.
Stagmomantis - 1 juv. nympt.
Hyrtula Few.
Tumbletropidia Jms. only. Odontoxiphidium Few.
Orphulella Few.
Dissosteira Few 1♂ + 1♀ separately. Neat ♀ but capt. ♂. In oak scrub.
Eotettix 1♀ nympt.
Cyrtophyllum 1 nympt. Neoconocephalus 1 juv. nympt
Alerth. 12 + 218 = 230. Other ins. 2 + 39 = 41.

1945. 15 Three miles S.W. of Mondi's Corner, Berkley Co., South Carolina. Aug. 7, 1945. J.A.G.R.

In thinned out but not badly logged long-leaf pine woods, with natural undergr. remaining.

Oligonyx 1 ♀ rept from ground com.

Tettigids 1 from damp sand along roadside ditch.

~~Hop~~ Hybula few.

Arrhabdotrupedia pini. few.

Melanoplus punctulatus few.

Odontoxiphidium rept.

Cyclopteluum rept.

Orth. 11 + 230 = 241.

Other ins. 0 + 41 = 41

[Mr. Switzerland]

1945. 16 Three miles S. of Ridgeland, Jasper Co., South Carolina. Aug. 8. 1945. J.A.G.R.

In opened-up and log cut-over long-leaf pine-woods, with wire grass and similar undergrowth, cut in spots with lycopodium. No two palmetto noticed here. Also roadside ditch with some standing water and tall grasses and rushes.

Stagmomantis 1 juv. rept.

1945.16 (cont.)

Tettigidae (Tettigidea + Nomotettix) two in roadside
damp spot.
Radinostatum 1 juv. swept.
Mermiria vigilans two in low spots in
woods, these not necessarily damp. All adult.
Clinocephalus. Several, adults + juvs.
Schistocera alutacea type. 1 adult flushed,
lighted in pine tree tank, was captured.
Several other adults seen.
Schistocera juvs. various sizes, in
fair numbers. Also large juvs. taken.
Melanoplus juvs. numerous.
Paroxya atlantica 1 ad. captured in mdw.
" clavuligera 1 ad. in roadside
wet spot.
Leptysma 1 juv. swept from grasses
in hollow.
Scudderia juvs seen but not taken.
Neoconocephalus 1 ad. swept.
Orchelimum? sp. ? Numerous juvs. in
roadside drain but not spot.
Bilocephalus 2 juvs. swept in mdw.
Phylloscyrtus 1 ad. swept.

Earth. 30 + 241 = 271.
Other ins. 12 + 41 = 753.

1945. 17. Three miles N. of Marion, McIntosh Co., Georgia. Aug. 6, 1945. J.A.G.R.
In open second-growth long-leaf pine woods, with wire grass, etc. out spots. Immediately after rain and most ground bare out.
Tettigidea + Nomotettix Roadside out and infreq.
Hieroglyphus common, roadside, adults and juvs.
Clinocephalus juvs. in woods + roadside.
Melanoplus sp. juvs. in woods + ground com.
Leptysmopsis. 1 juv. - 1 ad. in woods on ground litter, ground com.
Orchelimum 1 ad ♀ swept from roadside.
Odontoxiphidium. 1 juv swept in woods.
Neoconus 1 juv swept in woods.

Orth. 24 + 271 = 295.
Other ins. 2 + 53 = 55.

1945. 18 Groos, Nassau Co., Florida.
(just north of St. Mary's River mth. 17)
Aug. 9, 1945. J.A.G.R.
Roadside, along drainage ditch and under open stand of long-leaf pine.
After rain - much thundering today.
Orphulella numerous, adts + juvs.
Hieroglyphus few, adts + juvs.
Clinocephalus " " " "

1945.18 (cont.)

Melanoplus sp. jms. only.
Ceptenopedes sp. Very few adults ♂, numerous juv.
Orchelimum militare 2♂ in tall grass, no other adults seen.
Odontoxiphidium fam.
Orth. 23 + 295 = 318.
Other ins. 1 + 55 = 56

1945.19 Five miles S.W. of Callahan, Nassau Co., Florida. Aug. 9, 1945. J.K.G.R.
(1) In open cut long-leaf pine woods with pine grass + low shrubbery, but no saw palmetto, and also (2) along roadside ditch.
Tettigids - sept.
Cephalella numerous, adults + juvs.
Cleoxiphites fam, adults + juvs.
Dichromorpha juvs. numerous.
Ceptenopedes sp. very few adults, and three males, juvs. numerous.
Melanoplus sp. juvs. only. Few.
Neurotrix 1 sept.
Orth. 14 + 318 = 332.
Other ins. 7 + 56 = 63.

1945. 20 Waldo, Alachua Co., Florida.
Aug. 9, 1945. J.A.G.R.
In edge of long-leaf pine woods with damp spots, chief undergr. saw palmetto, wire grass. other tall grasses.
Stagmomantis 1 juv. rupt.
Mahomena 1♂ + 1♀ rupt highly.
Tettigids numerous in damper areas.
(Tettigidea, Nomotettix + Neotettix)
Radinotmus fasc. all juvs.
Orphulella ads. + juvs. Numerous.
Clinocephalus " " " Common.
Hippiscus tuberculatus numerous, all adults, in mitten area
Melanoplus punctulatus 1 juv. rupt.
" differ. " juvs. only.
Aptinopedes rpt. Common, chiefly juvs. but both sexes also adults, although few ♀♀.
Aptinopedes aptera. 1 ad. ♀ rupt. - all run.
Belocephalus juvs. rupt.
Orchelimum vulgare Common, largely adults.
Conocephalus 1 ad. rupt.
Scudderia 1♂ rupt
Xiphidium 1 juv. rupt.
Cyrtoxiphium 1 juv. rupt
Work 101 + 332 = 433.
Other ins. 5 + 63 = 68.

1945.21 Lynne, Marion Co., Fla. Aug. 10, 1945. J.A.G.R.

In open long-leaf pine and oak woods, with undergrowth light; chiefly oak scrub - little saw palmetto, no wire grass.

Macrocilla. Two adults, juvs. more frequent. Gunnal.

Orphia carinata One taken - all sex.

Spharagemon capitanea. Several seen, one taken.

Short-winged Melanoplus. One ♂ - all seen, taken.

Apteronopides aptera. All seen taken - both adults & juvs - present.

Neonobius ambitiosus. Numerous, swept from ground - on oak leaf litter.

Orth. 20 + 433 = 453.

Other ins. 1 + 68 = 69.

1945.22 Two mile S. of Tavares, Lake Co., Fla. Aug. 10, 1945. J.A.G.R.

In open low pine-oak scrub woods, with undergr. of indigo, tall grass, oak scrub, cactus. Soil sandy sand, low in some places.

Anisomorpha 10 swept.

Mansonia numerous, both sexes, all adults, apparently pupating Fall prae.
Mermisia pitcher 1 female & empt - not kept.
Corphia. Two in ground, one taken.
Short-winged Melanoplus not common, mostly adults, very active.
Aptenopedes aptera 1 ♀ empt.
Belocephalus 1 juv. empt.
Odontoxiphidium. Two.
Arcanthus. Two. empt.

Orth. 25 + 45-3 = 478.
Other ins. 6 + 69 = 75.

1945. 23 Three miles W. of Kissimmee, Osceola Co., Fla. Aug. 10, 1945. J.H.G.R.
In open pine-oak scrub on sandy soil, latter here in ½ plants. Undesp. oak scrub, some acacia, tall grass, vine grass, and other low plants.
Thysochotia 1 ♀ empt from ground in undergrowth.
Tettigid. empt. - Mansonia 1♂ empt.
Radinotettix Two adults & juv.
Cephalella Locally common.
Amblytropidia Rare juv.
Gymnoscirtetes 1♀ empt. All seen.
Melanoplus large - juv. Larval - one kept.

1945.23 (cont.)

Melanoplus sp. Short-winged species.
Few adults, mainly fins. Numerous but very active.
Aptinopedes sphenarioides. Few, adults of both sexes taken.
Aptera. aptera. Common - largely fins. Apparently partial to salt grass.
Scudderia 1 nymph from salt grass.
Orchelimum. Adults. fins.
abundant. Dapsilium gen. 1 ♂
Belocephalus - Sev. fins. nymph. max.
Neoconocephalus ensiger. One fin. nymph.
Orth. 52 + 476 = 530.
Other ins. 3 + 75 = 78.

1945.24 Four miles S. of Holopaw, Osceola Co., Fla. Aug. 11, 1945. J.A.G.R.
In tall grass and low saw palmetto scrub along right of way. Swamp and exposed in muck areas.
All tettigids nymph.
Mermiria picta One nymph.
Radinotarsus. Numerous, chiefly adults.
Orphulella " " "
largely on ground.
Conocephalus. Moderately numerous.
Gymnoscirtes Numerous.
Melanoplus. " adults. fins.
Orth. 55 + 530 = 585. Other ins. 2 + 78 = 80

1945.25 Kokomo, Osceola Co., Fla.
Aug. 11, 1945. J.A.G.R.
In roadside prairie and cut ditch.
Few saw palmettos, much brush grass
and low bushes, ditch with water
plants.

Stagmomantis jun. rept.
Thesprotia ♂ ad. ♂ rept. Tettigidea rept.
Mansonia ♂♂ ♀♀ rept.
Radinotarsus. Numerous, adults & jums.
Cephaloella. Abundant - adults & jums.
Chiracephalus ♂♂ Few.
Trichomorpha Few, adults & jums.
Hymenicelus
Melanoplus N.-w. Few adults in dried
spots on a few plants jums. none as many.
Apteropedes Opheraicides. Fairly
chiefly jums.
Eotettix signatus ♂♂, ♀♀, on water plants,
separately.
Scudderia Few. nymphs - taken from tall
grass.
Amblycorypha rehni. One ♀ rept.
Odontoxiphidium. Abundant, jums.
& adults.
Idiostatus gracilis ♀♀ rept.

Work. 71 + 583 = 654
Urban 5 + 80 = 85.

1945. 26 Nine miles N. of Port Mayaca,
east side of Lake Okeechobee,
Martin Co., Fla. Aug. 11, 1945.
J.A.G.R.
Roadside in tall sandy grass-sand.
Melichromopha common.
Amblytrypidia juv. few.
Chontophaga 1 juv.
Melanoplus femur-rubrum 1 impf.
Aptinopedes sph. few.
Orth. 12 + 654 = 666.
Other ins. 10 + 85 = 94

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945. 27 South Miami, Dade Co., Fla.
Aug. 17, 1945. J.A.G.R.
In open pine woods, burned one year
ago, on limestone. Undergrowth chiefly
tall grass and saw palmetto.
Almost no Orthoptera.
Schistocerca americana seen but not taken.
Radinotatum few, adts. & juvs.
Tylotula one only.
Cyclopetilum one nymph.
Orth. 4 + 666 = 670.
Other ins. 1 + 94 = 95.

1945.28 Homard, Wade Co., Fla. Aug. 17, 1945.
J.A.G.R.
In pine woods on coquina rock, with tall grass + two palmetto undergrowth. Very little water.
Neotettix saxpt.
Radinotatum 2 ♂♂.
Amblytropidia 2 ♂♂, juvs.
Orphula carinata Com. two coquina rock.
Melanoplus propinq. In woods side drain.
Odontoxiphidium 1 ♀ all stem, captured.
Hapithus 1 ad. ♀ lost, 1 juv. captured.
Orth. 7 + 670 = 677.
Other ins. 3 + 95 = 98.

1945.29 Edge of Coastal Everglades at Florida City, Wade Co., Fla. Aug. 17, 1945. J.A.G.R.
Along dry ditch, in drained but still soft portion of original surface with tall grass and muddy growth, and roadside.
Blown 2 ad. ♀ + 1 juv. swept from tall growth, roadside. Long travels for DD netted none.
Dichopetala 1 ad ♀ swept.
Stagnomantis 1 juv. swept.
Manomera 3 ♂♂, 3 ♀♀ roadside edge of everglade condition - funeral.

1945: 29 (cont.)

Neotettix mdpt.
Melichromopha Ads. fins. numerous, roundish.
Chrysochraon ½ only.
Radinotatium very few, but no adt. nor subm.

Chorthippus unsex. ½ ad. tmpt, roadside.
Paroxya atr. 1 ad. ♂, 1 juv. Old fem.
Apotettigidea clara 1 ad. ♀ in stem of tall grass.
Conocephalus fasc. tmpt. roadside. Almost all fem subm.

Ads. 29 + 6♂ = 706.
Other ins. 22 + 9♂ = 120.

1945. 30 Three miles S.W. of Key Largo Village. Key Largo, Monroe Co., Florida. Aug. 20, 1945. J.A.G. Rehn.

Sw and along edge of hammock of about 12 to 15 feet in height at most, in considerable part young gumbo-limbo, bay tree, etc. - Top silt a mere film. Soil almost entirely swamping.

Anaprotia 1 ad. + 1 juv. ♀ tmpt.
Orphulella 1 juv. tmpt - all fem.
Melanoplus sp. juv. tmpt. Few.
Ethiodemica only juvs. seen.
Conocephalus fasc. Few - mostly juvs.
Odontoxiphidium. Few + mostly juvs.

Cyptoxipha proxi 1 nmpt - all sm.
Cycloptilum Elmmum ugis - nmpt
Hapithus 1♀ nmpt.
Orth. 16 + ~~206~~ = 722.
Ortho ins. 23 + 120 = 143.

1945.31 East end of Long Key, Monroe Co., Fla. Aug. 20, 1945. D.J. & J.R.
In salt marsh vegetation, Spartina, Salicornia, pickle-weed (gen. ?), some Ins mangrove, other tall grass.
Neoconocephalus intert. 1 ♂ taken - all sm.
Orphulella hyaophila small series of both sexes - numerous.
Amblytropidia 1 juv. nmpt.
Schistocerca juv. Few.
Aptenopedes 1 juv. nmpt.
Melanoplus sp. 1 juv. nmpt.
Odontoxiphidium nmpt. juvs.
Hapithus 1 juv. nmpt
Orth. 15 + 722 = 737.
Ortho ins. 5 + 143 = 148.

1945.32 Long Key, Monroe Co., Fla.
Aug. 20, 1945. D.J.R.
In hey scrub & pinto-limbo, etc.
Lepidella cuticephila - few only - roadside.
Paroxya paroxyoides 1 ad. impt. a few pins.
Acrid.
Schistocerca amer. Nymphal very many
adults few - pins. numerous.
Conocephalus sp.
Cyclopsilenus impt.
Hapithus 1 pin. impt.
Orth. 11 + 737 = 748.
Other ins. 7 + 148 = 155.

1945.33 Near Islamorada, Upper Matecumbe
Key, Monroe Co., Fla. Aug. 20, 1945. J.R.G.R.
In hey scrub - Imdoside.
Schistocerca 1 pin. & impt.
Schistocerca pins. only seen.
Paroxya paroxyoides Two adults, numerous
pins.
Scudderia pins. only - none taken.
Odontoxiphid. pins. 1 ad. ♂ taken.
Cyclopsilenus. Numerous - impt.
Hapithus 1 ♀ & pins. impt.
Orth. 18 + 748 = 766.
Other ins. 5 + 155 = 160.

1945.34 Near Newport, Key Largo, Monroe Co., Fla. Aug. 20, 1945. J.A.G.R.

Edge of hammock - mapping almost entirely.

Melanoplus propinq. 1 ad. ♂ 1 juv. ♀, nymphs.

Paroxya paroxyoides ♀.

Acantocephala sept 1 ♀, some low cum.

Microcentrum sp. 1 juv. - sept from arborescent foliage.

Neoconocephalus 1 ♂ 1 ♀ sept from tree foliage.

Orth. 9 + 766 = 775.

Other ins. 11 + 160 = 171.

1945.35 Five miles N.W. of Hialeah, Dade Co., Fla. Aug. 24, 1945. J.A.G.R.

In drained cypheds of grass and low bushes, which had been invaded by roadside mud.

Clinocephalus, very few.

Mel. propinquus 1 ad. ♂ all seen.

Paroxya paroxyoides 1 ad. + numerous juvs. (all of former seen)

Aptenodontes clara 1 ad. 1 juv. sept. all seen.

Orchelimum agile Common in tall grass, almost all adult.

1945. 35 (cont.)

Cyclopsitalus 1 juv. rupt.
Cyptoxenopsis. Not common in tall timber
all rupt. Adults - pron.
Cath. 23 + 775 = 798.
Cathm 18 + 171 = 189.

1945. 36 Three miles S. E. of Naples,
Collier Co., Fla. Aug. 2d. 1945. J.A.G.R.
In largely flooded slash pine woods
with some cypress scattered through, and
prairies, low thinly and mats of
saw palmetto: habitable areas very
limited in account of flooded condition
of nearly all land surface.
Neotetlix - Tettigidea rupt.
Mermiria 1 juv. ♂ ("M. attenuata") rupt
from a clump chiefly of saw palmetto.
Radinot. Ads + juvs. Not common
in saw palmetto + grass.
Orphulella - not common - in ground.
Leptysmopedon - not common - ads. + juvs.
in saw palmetto.
Melanoplus sp. Juvs. only - few - rupt.
Paroxya atl. Juvs. only - few.
Schistocerca. Few adults, around pine-
forest.
Neoconocephalus ensifer. 1 juv. rupt.
Cath. 25 + 798 = 823.
Cathm 2 + 189 = 191.

1945.37. Near Murdock, Charlotte Co., Fla.
Aug. 29, 1945. J.A.G.R.
Radicle of Sabal, sand hills, tall
grass, much in standing water due to
recent heavy rains. Little dry area
to be found.
All Tettigids rare.
Radinostatum Few - rare.
Oxbelella - Occasional on ground.
Melichroamorpha Few - adults + juvs.
Chortophaga Occasional - adults +
juvs.
Apteropedes spp. Few - all adults.
Rhomalea - One ♀, on ground.
Adontoxiphs. Few.
Conoceph. fasc. Few adults - occas.
juvs.
Neoconocephalus ambit. Few. 1♂ + 1 juv.
Taken - rare.
Orth. 39 + 823 = 862.
Other ins. 3 + 191 = 194.

1945.38 Sarasota Co., 6 m. N.W. of
Murdock, Charlotte Co., Fla.
Aug. 29, 1945. J.A.G.R.
In clumps of Sabal palmetto + palm hammocks,
and in tall grass + weeds in open areas
of pine flat woods.
Tettigids - Few, rare.

1945-38 (cont.)

Radinothrium knyfauc.
Mermiria picta Vallum.
Urphutella-fau.
Milanoplus sp. 1♀ tunnel.
Coptomys aplus. Unc rupt.
" aplus. Rav - in two palmetto.
Gypsonoctites 1 rupt.
Scudderia 1♂ rupt.
Belocephalus hv. juv. rupt.
Odontoxiphid. - common, mostly juv. - funnel but none freq. in two palmetto.
Cyclophilus 1 rupt from sand palmetto.
Orth. 32 + 862 = 894.
Other ins. 2 + 194 = 196

1945-39 Sarasota City, Sarasota Co., Fla. Aug. 29, 1945. J.H.G.R.
Sand dunes with moist bottoms between and those with peat-like bottoms:
Tettigids - one of bare sand, others in peaty spots.
Scirtetea picta. Fau on sand.
& Chorthippus unsk. " " "
Belocephalus. fau. rupt.
Orth. 16 + 894 = 904
Other ins. 1 + 196 = 197.

1945.40 Betw. Osprey & Nokomis, Sarasota Co., Fla. Aug. 29, 1945. J.H.K.
In cultd - cut long-leaf pine woods with dense ground cover of palmetto, full pace, mat fm a few in. tall mod.
Hagenia. 1 juv. mypt.
Radii. Numerous, chiefly juvs.
Melanoplus b.-w. 1 ♂ mypt.
" lacus sp. 1 juv. mypt.
Leptinopides apt. type 1♀ mypt.
" spl. type. Numerous juvs.
Odontoxiphidium. Abundant but largely juv.
Orth. 26 + 904 = 930.
Other ins. 3 + 197 = 200.

1945.41 - 2 miles S. of Fort Ogden, DeSoto Co., Fla. Aug. 30, 1945. J.H.K.
In cut-out pine woods in sand, with ground cover of saw palmetto, gall hung and dwarf oak, with numerous small areas of bare sand.
Manobia. 15 mypt from gall hung.
Radinotatum. Hy fem.
Leptodalla (in ground), nymphs + juvs.
Macrillia 17 mypt.
Scirtetica picta hy fem in sand.
Perinidia fenestralis. Nymphs.

1945.41 (cont).

Leptonopides aptus type. From ~~bad~~ fall hay and low oaks. 37 specs. 2 spp. (?) Juvs. & adults.

Belocephalus All adults - not numerous. On fall hay and saw palmettos.

Adoutxipthid. Numerous, chiefly in fall hay and saw palmetto. Mostly juvs.

Hapithes knisp - 17 + 1 ♀ all seen, taken simply from fall hay.

Ord. 25 + 930 = 955.
Other mis. 8 + 200 = 208.

1945.42 Gardner, Hardee Co., Fla. Aug. 30, 1945. J.H.G.R.

In cut-over L. L. pine woods with dense ground cover of saw palmetto and grass, with hay little fall hay

Tetragids - numerous.

Radinotarsus - occasional.

Leptusella - numerous.

Adoutxipth. Common - mainly juvs.

Neothrombium anthit. One only.

Ord. 15 + 955 = 970.
Other mis. 6 + 208 = 214.

1945-43 Pembroke, Polk Co., Fla. Aug. 30, 1945. J.A.G.R.

In cultd ant and prattly dis Funkd pine woods, with undrgr. Largely extraneous woods and grasses, with sand hills. No fall hwy n dso palmetto scrub.

Dicroptria 1 ad. ♂ impt.

Mammia 4 ♀ 1 ♂, all impt from tall bushes and woods - Coincidentle march made for male.

Radinotarsus - adults not numerous, many juvs.

Hyptiella - few.

Melanopl. Luridus 1 ♂ & few nymphs.

Melanopl. Rh. w. few, adults n juvs.

Aptinopeda - spk. Type. few. Ads + juvs.

Bliscophalus - all dam juvs. - impt.

Odontopx spk. Abundant, chiefly juvs.

Neoconocephalus ambit. few. Ads + juvs.

Chlorotettix 1 impt.

Orth. 44 + 970 = 1014.

Other ins. 6 + 214 = 220

1945.44 One mile N. of Davenport, Polk Co., Fla. Aug. 30, 1945. J.A.G.K.

In scrub oak with scattered pine and also usual undergr. of sub woods with trees removed. Saw palmetto, low oak scrub and various mosses present.

Radiostatum. - few.

Eotettix 1 juv. indiv. all stem, very rare.

Aptenopedes aptera type. 1 ad. ♀ + juvs.

Apteu. Sphenarioides type. 1 ad. ♂ + juvs.

Odontoxiphid. Numerous, largely juvs.

Orth. 11 + 1014 = 1025.

Other ins. 6 + 220 = 226.

1945.45 Between Wagner and Lake ~~Crescent City and Lake~~ Mary, Seminole Co., Fla. Aug. 31, 1945. ~~Lemon, Putnam Co.~~ J.A.G.K.

In dry pine and oak woods on sandy soil, with undergr. of saw palmetto, gall berry, rosemary(?), scrub oak & tussock species, & cane grass, etc.

Radiostatum - Numerous, adults + juvs.

Amblytropidia Few juvs.

Mermiria 1 Am. juv.

Layra Melanoplus th. w. 1 ♂ in ash scrub.
Smaller " " " Small in ash
scrub - not numerous, adults
juv.
Schistocera damnif. adult. One in
ash scrub.
Leptysmopedes sph. Two in roadside
tall weeds & grasses.
Leptysmopedes apt. type. Numerous
in ash scrub mostly juv.
Mapithus brevipennis Locally numerous
in ash scrub. Mostly adults.

Orth. 35 + 1025 = 1060.
Other ins. 3 + 226 = 229.

1945. 46 Beko. Crescent City and Lake
Como, Putnam Co., Fla. Aug. 31, 1945.
J. R. G.
In scrub (and) palmetto land from which all
pine had been removed. Corn chiefly
two palmetto + pull bug.
Tettigid (1) - nymph.
Radinotettix - not common - juv.
Neoconocephalus alarius 15 taken all fem.
Orphulella two.
Amblycorypha - two, juv.
Mecostethus 1 juv. taken.
Melanoplus th. w. from roadside
tall grass!

1945.46 (cont.)

Leptinopsides aptera type - in two palmetto and pitt tuny. Adults + juvs.
Leptinopsides spp. - Few in tuna.
Odontoxiphidium - Not common, mostly juvs.
Belokephalus 1 juv. & nymph from two palmetto - pitt tuny.

Ants. 20 + 1066 = 1080.
Other ins. 1 + 229 = 230.

1945.47 Bostwick, Putnam Co., Fla.
Aug. 31, 1945. H.G.R.
In two palmetto stub with pitt tuny, wire grass and other tall grasses and muck. Pine cut out.
Radinotatum - Few, all juvs.
Lamblytropidia " " "
Chirexiphalus Few.
Cyphidella ungrave.
Cyphia - two + last instar, Forh 1 juv.
Hymenoscirtus. Common. Juvenal but chiefly in pitt tuny.
Leptinopsides spp. Type Few.
Odontoxiphid. Common - largely juvs.

Ants. 28 + 1080 = 1108
Other ins. 5 + 230 = 235.

1945.48 Three miles N. of Kingsland (Kingsland), Camden Co., Ga. Sept. 1, 1945. J.A.G.R.
In long-leaf pine woods with undergr. of saw palmetto, wire grass, etc. No damp spots. Some little live oak scrub.
Radinotarsus - few, all jms.
Asphalilla - few.
Cimicophalus - a single ♀ sum - Fahrn.
Asphia - no sum + list.
Sphistocnus dampfi. calcidius - One adult ♂ Fahrn - only adt. sum.
Symmosciurites. Very local in a quite limited area.
Ceptenopedes apt. type. - Very local in oak scrub.
Ceptenopedes sphen. type. Numerous + quite general - adts + jms.
Scudderia - 1♀ nupt.
Neoconocephalus jms. sum - none Fahrn.
Odontoxiphi. local, few.
Orth. 28 + 1108 = 1136.
Other ins. 1 + 235 = 236.

1945.49 Three miles north of Marion, Mc Intosh Co., Ga. Sept. 1, 1945. J.H.G.
In dry oak - pine woods with heavy undergr. of saw palmetto, fall berry. low scrub oak - Palm thicket.
Stagmomantis two juvs. rupt.
Tylopsis One taken - all seen.
Eumastax juvs only - few.
Orphulella - numerous.
Schistocerca damnifica - one taken from saw palmetto.
Schistocerca alutacea. - one taken from saw palmetto.
Schistocerca damnifica - Caliginis - Several from low oak.
Melanoplus bivittatus Few - adults & juvs.
" nipescens type. 1♂ 1♀ taken singly.
" Carnegiei type. 1♀ rupt.
" Australis. Locally numerous in ground in tender corn.
Aptenopedes aptera type. Few. - no adults seen.
Aptenopedes sphena. type. More numerous - largely juvs.
Neoconocephalus - Very few.
Orth. 40 + 1136 = 1176.
Orthoptera 2 + 236 = 238.

1945.50 Six miles S. W. of Richmond Hill (Ways Sta.), Bryan Co., Ga.
Sept. 1, 1945. J. H. G. K.
In freshly cutlet t. l. pine woods, with slashings not fully cleared out. Almost no Ceratodella.
Cephalella 1 juv only
Melanoplus - two - adults + juvs.
Cyphia - a few, two taken.
Mapistus two 1 nymph.

Ceratodella 7 + 1176 = 1183.
Cephalella 0 + 238 = 238.

1945.51 Five miles N. of Ridgeland, Jasper Co., S. C. Sept. 2, 1945. J. H. G. K.
On roadside and r. r. right of way strip of timbered land, with tangle, Fall weeds, bracken, sumac, fern, oak scrub, etc.
Cephalella - not numerous.
Schistocerca americana - 1 Nymph. not numerous juvs.
Schistocerca damnifica Caledon Scrub - taken.
Melanoplus bivittatus - Two - adults + juvs.
" carnegiei type. - 1 ♀ Imp.
Scudderia Sev. in oak scrub.

1945.51 (cont.)

Neoconocephalus - Few - juvs. only

Conocoryphidium. Few.

Orth. 14 + 1183 = 1197.

Other ins. 2 + 238 = 240.

1945.52. South side of Santee River, near Parker, Orangeburg Co., S.C. Sept. 2, 1945. J.A.G.R.

Rain-soaked oak woodland - nothing stirring. Scudderia fluttered from roadside weeds.

Orth. 2 + 1197 = 1199.

Other ins. 4 + 240 = 244.

1945.53 Three miles E. of Sumter, Sumter Co., S.C. Sept. 3, 1945. J.A.G.R.

In open pine woods with undergr. of tall weeds, tall grasses; also adjacent clean old field land grown up in tall grasses and weeds.

Tettigid - 1 rept.

Brunneria - 1 juv. ♀ rept from tall grass.

Orphulella - 1 nally numerous - adts. + juvs.

Amblytropidia juvs. only - scattered.

Aytha few - in woods & in clearing.

Schistocera amer. 1 adult.

" damn. calidior 1 juv, all stem

" alutacea - few. on weeds.

Scudderia - 1 rept.

Amblycorypha rehni 1 rept

Cnemaphalus strictum 1♂ rept in clearing.
Verh. 24 + 1199 = 1223.
Vertebrates 12 + 244 = 256.

1945.54 McBride's Corners Crossroads, Sumter Co., S.C. Sept. 3, 1945. J.N.G.
In pine woods with much sweet gum and some oaks. Dense undergrowth of low sweet gum, sweet fern, and numerous other shrubs. Also roadside tall grasses + weeds. Little Verh.
Cephalella - occasional.
Ambytropidea - Few - juvs.
Schistonota abst. Gen.
Melanoplus carnegiei type. 1 juv. ♀ rept in woodland - all stem
Melanoplus australis type. - 2♂ rept from roadside vegetation - no others found after considerable search.
Orchamis 1 juv. rept from low oaks.
Neoconocephalus Xiphidium lat. 1 rept. from low oaks.
Verh. 9 + 1223 = 1232.
Vertebrates. 2 + ~~240~~ 256 = ~~242~~ 258.

1945.55 Near Hoyt, Florence Co., S.C.
Sept. 3, 1945. J.A.G.R.
In pine woods & rather open undergr.
of oak scrub, huckleberry, etc.
Neptunella - locally numerous.
Cumbytropidia - Juv. only - few.
Melanoplus carnegiei type. 2 juv. ♀♀,
in two pronotum.
Melanoplus sp. ex. 1♂ roadside.
Scudderia - swept from oak scrub foliage.
Conocephalus strictus - 1♀ from tall grass
at edge of woods.
Hapithus 1 juv. swept.
Orchestina 1 ♂, 1 ♀, swept from
low oaks, nitidly.
Orth. 12 + 123/2 = 1244.
Other ins. 258 + 1 = 259.

1945.56 Near Mars Bluff, Florence Co.,
S.C. Sept. 3, 1945. J.A.G.R.
In mixed hardwood forest with scattered
pine. Undergr. huckleberry, oak scrub,
sweet fern, etc. Also roadside grass
and weeds along drain. Sky
overcast - little moving in woods. All
swept in roadside weeds & grass.
Brunneria borealis 1 ad. + 1 juv ♀♀ in tall grass.
Scudderia + juv. Cumbytropidia.
Orth. 4 + 1244 = 1248.
Other ins. 7 + 259 = 266.

1945.57 Between Mano Bluff and the Pedee River, Florence Co. S.C. Sept. 3, 1945. J.A.G.R.

In tall pine woods with a low stray of oak and sweet gum. Undergrowth largely oak scrub, sweet gum saplings, coarse grass and huckleberry bushes.

Orphulella - few.

Amblytropidia - few - juvs.

Melanoplus carnegiei - typ. 2 ♂♂, all dem, in oak scrub.

Symmetroplevra modesta 1 taken after alighting on low sweet gum.

Chorosphalus fasc. 1 supt in woods.

Phylloscyrtus pulch. " " " "

With. 6 + 1248 = 1254.

Other ins 6 + 266 = 272.

1945.58 Five miles S.W. of Laurinburg, Scotland Co., N.C. Sept. 4, 1945. J.A.G.R.

Overcast day. In dry pine and oak scrub forest ("sand hills") on sandy soil. Undergr. chiefly oak scrub - bunch grass.

Mermiria picta 1♂ + 1♀ taken singly in tall green and striped grass at woods edge.

Amblytropidia - juvs. only.

Paratylotropidia - scarce. in sandy soil.

Melanoplus sp. ex. 1♂ juv. oak scrub - all dem

1945: 08 (cont.)
Melanoplus long-mipd. 1♀ from ditto.
Tunddiria me in oak scrub.
Conocephalus fasc. in tall roadside grass.
Orth. 21 + 12♂♀ = 1275.
Other ins. 14 + 272 = 286.

1945: 09 Two miles N. of Laurinburg Scotland Co., N.C. Sept. 4, 1945. J.A.G.R.
In very open oak woods mixed, with fringed areas of much grass and patches of low oak scrub & little else.
Unusual day.
Neoconocephalus - sing.
Microcentrum pilosa - one ♂ from tall green grass.
Orchelimum - numerous, adults + juvs.
Melanoplus punctulatus - few.
Tunddiria - one taken in flight.
Conocephalus fasc. - numerous
" brachypterus - locals, many juvs.
Orth. 21 + 1275 = 1296.
Other ins. 7 + 286 = 293.

[illegible]

1945.60 Nine miles N. of Laurinburg, Scotland Co., N. C. Sept. 4, 1945. J.A.G.
In tall pine woods with undergr. of oak scrub, huckleberries, wire grass, with a damp hollow densely grown up in alder and cane. Uncast.
Tetraplodon mnioides.
Amblystegium - fins. only
Cryphaea - fins.
Sanionia uncinata - one small mnioid from alder foliage.
Vascular 8 + 1296 = 1304.
Other ins. 8 + 293 = 301.

1945.61 Near Vass, Moore Co., N. C. Sept. 4, 1945. J.A.G.
In scrub oak and pine woods on sand, with undergr. of oak scrub, huckleberries and various grasses. Uncast.
Melanoplus sanguinipes type. - 18 + nymphs. on ground about oak scrub.
Amblystegium - fins. only.
Cyclophyllum - 1 mnioid from oak scrub.
Vasc. 5 + 1304 = 1309
Other ins. 0 + 301 = 301

1945. 62 Near Merry Oaks, Chatham Co., N.C. Sept. 4, 1945. J.M.G.R.
In mixed deciduous and pine woods in red loam. Under logs, moist shrubby. Uncert.
Symbola - few, adults + juvs.
Amblystropidia - juvs. only.
Melanophus suddeni type - adults & juvs. Leaf-litter.
Scudderia - a number, one taken.
Conocephalus strictus - Few adults, juvs - numerous.
Neonolina fuscus 1 ♀ impt.
Phyllosyntus 1 ♀ impt.
Orth. 15 + 1309 = 1324
Other ins. 2 + 301 = 303.

1946.

1946.1 One mile E. of Burlington, Mineral Co., W. Va. Elev. 900 ft. Aerial net check. Aug. 17, 1946. (Rehn). 870 corrected

Along roadside in woody pasture with taller herbs + vines.

1 ♂ Meidanoplus sp. Juv. swept in grass.

Microcentrum 1 ♀ swept from hanging vine.

Scudderia ditto.

Oecanthus latipennis. Juv. swept ditto.

Orth. 5

Other ins. 26

1946.2 Road crossing of Fore Knob Mts., Mineral Co., W. Va. So. of Elk Garden, headed toward Blaine. Aerial map 3150 ft (check). Top of road. Aug. 17, 1946. (Rehn.) 2721 ft.

Roadside of 2nd growth, with primary, etc., on one side: on other mixed pr. deciduous woods (Am. oaks, wild cherry, etc.) on stony slope, with undergr. of huckleberry, Kalmia + oak scrub.

In ground. 1 Amblycorypha, 1 ♀ Hiasphenomma, 2 juv. nr. taeniatus Tettigidea (2), all swept. 1 Spk. wh. Neoconocephalus fasc. ditto. 1 Mel. walshii taken, a pr. another nymph. last. Other Mel. all gris. Hieroglyphus carolina seen on road - not taken. In woodland nothing seen in the way of Orth.

Orth. 12 + 5 = 17.

Other ins. 18 + 26 = 44.

1946. 3 Summit of Backbone mtns., Garrett Co., Md. (4 m. N. of Kitzmiller) Elev. 2770 feet. ascend. to sign thru. Aug. 17, 1946. (Rehn)

Roadside - edge of mixed gr. decid. forest (chiefly oaks, with ash + hickory, some beech). Border with much ~~rag~~ ~~rot~~ rasp-fern-low panic. Mel. walshii - few adults taken in tall grass, imms. in numerous situations.

No other Orth. run except Mel. imms.

Orth. 4 + 17 = 21.

Other ins. 23 + 44 = 67.

1946. 4 Bet. Smithfield and Point Marion, Fayette Co., Pa. Elev. 450 feet aneroid (check). Aug. 17, 1946. (Rehn). 1017 feet corrected

In grown-up sandy old field with wild carrot, mullein, scattered red clover - misc. weeds.

Rhicron. viridis 1 ♂. hupt.

Conoc. Xiphidium nitidum 1 juv. hupt.

Mel. femur-rubrum Common, adults + juvs.

" diff. 2 adult males + all seen - no funeral, distended + in pairs abnormal.

Scudderia 1 hupt.

Conoceph. fasc. Numerous.

" Attenuatum Few adults - mainly juvs.

" palustris. 1 - all seen.

Neoconoc. fasc. Numerous adults + juvs. Orchelimum adults - Orth. 34 + 21 = 55 juvs.

Other ins. 4 + 67 = 71.

1946. 5 Smithburg, Doddridge Co., W. Va. Elev. (aver.). Inst. chuck. Aug. 16, 1946. (Ruhm).

Roadside under trees both on one side - R.R. right-of-way on the other. Tall grass with mullein, fragle + weeds. Fallen growth locust saplings + hazel. Most earth. fins.

Neichnanympha nitidis. 1♂ 1♀ taken separately. adult sum.

Mel. sp. prob. femur-rubrum 1♀ all adults seen.

Mel. sp. ? Imms. numerous.

Hemianophalus sp. Larval fins. - not kept.

Cnemephalus fins. abundant. - adult ♀ C. turpinnis, stricker + other? taken in mowing Lawn growth.

Pseudocris 1 ad. swept from hazel.

Amaxipha 1 ditto.

Mecanthus latipennis few adults, fins. moderately numerous, chiefly from taller growth.

O. nigricornis type. few adults in Lawn growth.

O. other species. Adults in fair number.

earth. 38 + 55 = 93

other ins. 21 + 71 = 92.

1946.6 Ellenboro, Ritchie Co., W. Va. Elev. (aver.) 625 feet. Check. Aug. 18, 1946. (Rehn)
In old field along culled-out wood edge; wild carrot, mullen & tall grass predominant; A boggy spot with cat-tails included.
Mel. fem. rubrum (+ trifacial mut.) Inv. adults - many juv.
" bivittatus. 12 ♀. All adts. Imm.
" tumidus. Inv. adults all mounted.
Coquillettidia spp. many juv. - only few adults
Aedes spp. Few adults, many juv.
With. 17 + 93 = 110.
Without 7 + 92 = 99.

1946.7 South Parkersburg, Wood Co., W. Va. Elev. (aver.). 600 feet. Check Aug. 18, 1946. (Rehn)
In roadside ditch with tall mud & adjacent marsh mud - mycrophyte field. Usual rank vegetation.
Mel. diffenestralis. Abundant - limited area taken. Adults, juv. present about equally. Adults in copula & free flying.
Mel. fem. rubrum. Less numerous than preceding. Juv. & adults also.
Aedes: few adults - juv. num. locally.
Tendipes - numerous in ♂.
With. 25 + 110 = 135.
Without 1 + 99 = 100.

1946. 8 Betw. Kenna and Liscomville, Jackson Co. W. Va. Elev. 450 feet (approx.) Aug. 19, 1946 (Rehn) about 500 feet traveled

Grown-up roadside slope, under-stripped wooded slopes, pasture and marshy ravine, stony meadow, blackberries, hayed fall meds. little with adults.

Mel. trittata. 1♀ ad. captured - lost.

Other Mels. few - all juvs.

Euxpt. sordidus. 1 juv. roadside

Acanthus Latip. juvs. frequent.

Other Acanthus. little

Cunaphalus striatus 1 juv. rarely, roadside

Orth. 10 + 135 = 145.

Other ins. 17 + 100 = 117.

1946. 9 Near Poratalico, Kanawha Co., W. Va. Elev. 450 feet (approx.) Aug. 19, 1946. (Rehn) Stroud

Overgrown hillside with scattered trees - locust, tulip, etc. Slope coming sumac, blackberry, + tall weeds. almost no Orth. adult exc. Scudderia, which were simply in taller cover & a few Acanthus. Wet damp ground at bottom of slope rarely Petrix were swept. Neoconocephalus heard & not taken. Wet Atlapinia also heard & found shredded but were lost when frightened by traffic.

Orth. 14 + 145 = 159.

Other ins. 6 + 117 = 123.

1946.10 5 m. W. of Milton, Cabell Co., W. Va.
Elev. 500 feet (aprox.). Aug. 19, 1946. (Rehn)
Weedy slopes, partly on top of shale bluffs, with occasional bare spots there, also along roadside. Almost no adult Q.
Tettigids. Few, along roadside, relatively damp situation.
Mel. spp. Juvs. no adults.
Schistocera. Juvs. - one empt on bluffs.
Chortophaga. Two very small juvs. - roadside.
Scudderia. Two in tall herbage.
Orchel. 1 juv. ditto. empt.
Leptop Conoceph. 1 juv. " "
Oecanthus few adults, empt.
Orth. 10 + 159 = 169.
Other ins. 12 + 123 = 135.

1946.11 Near Barboursville, Wayne Co., West Va.
Elev. 567 feet (aprox.) Aug. 20, 1946. (Rehn)
Two environments: one in natural cover of smilax, sumach, golden rod and forest tree saplings under (mixed low) pine, oak, sycamore tulip trees. Other old field, grown up in Fall weeds.
Tettigidea one empt from ground in first habitat.
Mel. lucidus. Some adults - all seen, - in first habitat.
Mel. spp. Juvs in both habitats.
Schistocera juvs. in Fall weeds.

1946.11 (cont.)

Chortophaga very small juvs. woodside.
Scudderia - one in woodland.
Melanoplus - few juvs. all sizes - in habitat two.
Conocephalus - juvs. in both localities -
Orthoptera ? Type pectic. in first.
Amaxipha - 1 pair mept Byrdton from
trees along woodland edge.
Neoconus 1♂ mept from ground cover
in woodland.
Neanthus Lat. - all juvs. in both habitats.
" Thamnop. - 4 juvs. chiefly in
old field.
With. 22 + 169 = 191.
Without 5 + 135 = 140.

1946.12 Near Genoa, Wayne Co., W. Va. Aug. 20, 1946. (Rehn). Elev. 650 feet.
Roadside. No With.
With. 0 + 191 = 191.
Without 3 + 140 = 143.

1946.13 Road crossing of Mosco Mtn., above Missouri Branch, Wayne Co., W. Va. Elev. (bench mark) 1034 feet. Aug. 20, 1946. (Rehn).
Roadside - dried woodland edge. Very few With. adult.
Chortophaga 1 adult in woodland edge cover.
Mel. femoratus 1 adult ditto.
Juv orthoptera - Mel.

Schistnema 1 juv. all sum.
Earth. 6 + 191 = 197.
Other inv. 11 + 143 = 154.

1946. 14 Between Canada and Mota, Pike Co., Kentucky. Elev. (anm.) 950 feet. Aug. 20, 1946. (Rain).
Rank growth in cove under bluffs & along roadside. Jewel chiefly blackberry and Fall weed.
Klischnomopha viridis 2♂ adult in roadside grassy spots.
Mel juv. Moderately numerous.
Schistnema juv. Few.
Conophalus - all juv.
Tuddiella sum ad last.
Neunthes 1♀, tmpt roadside.
Phyllocnyptus 1♀ tmpt sum tall rank growth.
Melanthus 1 adt. - all other juv. All tmpt.
Earth. 10 + 197 = 207.
Other inv. 12 + 154 = 166.

1946. 15 Ermine, Letcher Co., Kentucky. Elev. (anm.) 1150 feet. Aug. 21. 1946. (Rain)
Roadside weeds & grass - very few adult O. - nothing at all in tall weeds.
Tettig. sum ad tmpt.
Mel. juv. - subsum Unc ad. - all sum in that condition - numerous juv.

1946. IV (cont.)

Chortophaga. 1 ad. flew up on roadside & was caught. - Two juvs -

Melanoplus. 1 ad. nymph.

Orth. 11 + 207 = 218.

Other ins. 14 + 166 = 180.

1946. 16 Road crossing of Pine Mtn. east of Evarts, Letcher Co., Kentucky. Elev. (anem.) 2500 ft. 60°C. (Rehn). Aug. 21, 1946.

Immediate road vicinity an exceedingly steep slope, dropping off almost then below for hundreds of feet. Some wild grape, jimson weed, wild carrot, thistle, ragweed & various other weeds & grasses.

Mel. differentialis. Juvs. numerous - a few adults.

Mel. luridus. Two adults.

" mexicanus ditto.

Arcyptera fusca. Juvs. only

" Rhentpp. Adults & juvs.

Melanoplus sum but not taken.

Orth. 228 + 218 = 240

Other ins. 8 + 180 = 188.

1946. 17 Near Molus, Harlan Co., Kentucky. Elev. 1100 ft. 60°C. Aug. 21, 1946. (Rehn).

Roadside & slope edge of forest, some undergrowth, mostly grass & tulip?

Romaleum in thunter common & on bare spots.

Tettigidea: 1 on slope.

Symbula - fns numerous, nadsíde.
Enantyphaga. ♂ fns adults nadsíde, also fns.
Hippiopus nigrans. fns. adults + 1 juv. Nadsíde all sun.
Mel. lucidus. Dns - edge ♂ and com.
Ithistemma. fns. juvs. mb
Commephalus juvs. mxpt from under tree com.
Phyllosyntes. All mxpt from deciduous tree foliage.
Acanthus. All mxpt.
Earth. 28 + 240 = 268.
Other ins 8 + 188 = 196.

1946. 18 Near Barbourville, Knox Co., Kentucky. Elev. (uncr.) 1000 feet. Aug. 21, 1946. (Rehn.)

Edge of deciduous frst with entire ground in Hope absolutely covered with fungled insects. No Earth. at all except 1 ad. Scudderia flushed from bushes & juvs. (1 nymph) to Mel. lucidus & Ithis.
Earth. 3 + 268 = 271.
Other ins 1 + 196 = 197.

1946. 19 5 m. S.W. of Corbin, Whitley Co., Kentucky.
Elev. (ann.). 1175 feet. Aug. 22, 1946. (Rehn.)
In logged woodland patch, with limb debris, etc., grown up with saplings of deciduous trees, golden rod, sumac, smilax and other thicket brmers. Also along edge of mixed pine, oak, tulip & mut gum woods and in some woods.
Tettix - 1 swpt in the open area.
Melichroomphia 21 in open-all sex.
Hippiscus rugosus. Numerous in open area, active, flying freely.
Opharagnum Scudderi A few in open area.
Melanoplus. 1 on tree spot in logged area - all sex.
Mel. mexicanus. Few in open area.
" Scudderi Not common as adults, 2 ♂♂ taken, all sex. Appar. fins. numerous. All in open or on wood edge.
" luridus. Few - in open.
Schistocera Few sm. juvs. - in open.
Tundidia. Flying up into saplings in open - very active.
Neoconocephalus. Not common swpt.
Orchelimum 1 juv. swpt from a low holly tree. Nothing at all in woodland.

Herb. 24 + 271 = 295.
Other ins. 8 + 197 = 205.

1946.20 6 m. N. E. of Cumberland Falls, Whitley Co., Kentucky. Elev. (aner.) 750 feet. Aug. 22, 1946. (Rehm.) (In Cumberland Mts. mesic)
In tall deciduous + pine woods (chiefly oak and hickory) with the usual undergrowth of the same type forest, with sunny spots of bearn around.

Syrbula. One in front edge.
Phaeog. 1sp. found in front.
Scudderia. Numerous but not wild, flying high into trees.
Melanoplus. Imm. only & very few. Impt.
Neunstria 1 adult impt, front edge.
Orth. 8 + 295 = 303.
Other in. 3 + 205 = 208.

1946.21 Betw. Cumberland Falls and Parkers Lake, McCreary Co., Kentucky. Elev. (aner.). ~~750~~ feet. Aug. 22, 1946. (Rehm.)
On steep slopes with blackberry thickets + Smilax and a Bent grass roadside pasture.

Chortophaga in latter.
Mel. spp. Imm. only in both situations.
Neunstria imm. Impt in pasture.
Melanoplus imm. Impt. on slope.
Orth. 13 + 303 = 316.
Other ins. 3 + 208 = 211.

1946.22 Pine Knot, McCreary Co., Kentucky.
Elev. (aner.) 1500 ft. Aug. 22, 1946. (Rehn.)
In pine barren area with low growth of
oak scrub, 9 spec.
Solidago rod, mint fern, trillium and usu.
other weeds. Neonemo one dandy
spec. Border of oak & pine woods nearby.
Lycosa 1 juv. Rhabdomorpha 1 juv. on ground.
Schizocosa. Two juvs. mept.
Ceratticus two juvs. also mept.
Sphaerogiinum Vitti Few.
Schizocosa 2 large juvs. - one fem, the
other immat.
Pard. lunulata. Accas. juvs. & adults.
" saxatilis 1 ad. & 2 juvs.
" wood-dwg. sp. 1 ad. ♀ all unsuccessful search made for males.
Scytodes - Frag. - a few juvs. seen.
Araneus - chiefly juvs. - mept.
Arch. 122 + 316 = 338.
Other inv. 11 + 211 = 222.

1946.23 Bear Creek, Scott Co., Tenn. Elev. (aner.) 1550 feet. Aug. 22, 1946. (Rehn.)
Typical Cumberland Plateau condition.
Under mixed pine & oak, with undergrowth of blackberries and smilax, and
roadside edge.
Chortophaga - Roadside, few.
~~Coelo~~ Leph. pulchra 1 - all seen, within
edge of woods.

Asplia xanthoptica. Roadside, a few.
Typhula 1 jun. Fahen. on wood edge.
Mel. luridus Jun only - not comm
" otherp! " " Roadside.
Cantharocybe ulleri 1 ♀ roadside
shrubbery.
Mycena - sup.
Verh. 11 + 338 = 349.
Others. 8 + 222 = 230.

1946. 24 2m. W. of Rugby Road, Scott Co., Tenn.
Elev. 1400 (aner.) Aug. 22, 1946. (Rain)
In moderately tall pine + oak woods, with reasonably heavy undergr. in which bracken was a prominent feature. Numerous sandy bare spots
Typhula 1 jun. Fahen - nr. Rhus rad. Typhulella pulch. 1 Fahen - all ten.
Asplia xanth. Numerous.
~~Clavaph~~ Sphar. Colli numerous, occasionally
alighting on pine.
Mel. rounded typm. sp. 1 ♀ all ten, in low
conc. No males could be located.
Mel. luridus A few.
Cantharocybe ulleri 1 ♂ sumpt in woods.
Cantharocybe. 1 jun. sumpt.

Verh. 18 + 349 = 367.
Others in. 0 + 230 = 230

1946.25 Five miles E. of Crossville, Cumberland Co., Tenn. Elev. (aner.) 1950 feet. Aug. 20, 1946. (Rehn).
In culled out oak woods, with much brush left in + human + oak debris. Very little. Asphia xanthi. Few, on edge of woods. Mel. luridus. Very few in woods + on edge.
Mel. pins. ?
Schistonota pins. In woods.
Mel. differentialis One in cut at and mowed ~~woods~~ roadside strip - all dem.
Camnula. 1 pin. nupt.
Acanthacris Latipennis One ad. nupt in woods.

Orth. 9 + 367 = 376.
Other ins. 3 + 230 = 233.

1946.26 Near Roddy, Rhea Co., Tenn. Elev. (aner.) 850 feet. August 23, 1946. (Rehn.)
In old fields, one with scattered pines + oaks, and roadside. Very little. A few day ~~insects~~ spots.
Syrbula adt. 1a pins. In fair numbers - chiefly roadside.
Chortophaga - Numerous, roadside.
Asphia very few - one taken.
Fibris Frenata 1 ad. dem - lost. Imm. of various ages frequent.

Anthicomyia ashleri 1 ♂ empt. removed.
Cunctiphalus very few, pins.
Acanthinus - chiefly pins. - not common.
Orth. 16 + 367 = 383.
Other ins. 0 + 233 = 233.

1946. 27 Near Bakerville, Hamilton Co., Tenn.
Elev. ? Sept. Aug. 23, 1946. (Rehn.)
In old field, with trian and human.
Syrphida. Numerous.
Eupeleia x. "
Ichneumon pins. in fair nos.
Mel. sp. pins. only.
Orth. 5 + 383 = 387.
Other ins. 0 + 233 = 233.

1946. 28 Near Macdonald, Bradley Co., Tenn.
Elev. Upper 700? Aug. 24, 1946. (Rehn).
In grown-up old fields, heavily tangled. Virtually nothing.
Ichneumon anum. Saw one adult which flew long distance. Pins. numerous.
Mel. sp. Few. pins.
Cunctiphalus. Pins. Few.
Orth. 5 + 387 = 392.
Other ins. 2 + 233 = 235.

1946.29 1m. E. of Cleveland, Bradley Co., Tenn.
Elev. (ann.) 900 feet. Aug. 24, 1946. (Rehn.)
In tall pine and oak woods with undergrowth composed chiefly of oak scrub & sassafras. Also roadside undergrowth.
Rhiaphorrhina 2 juvs. erupt from oak foliage in woods.
Anthytrupidia 1 juv. at road edge.
Rhicnoetrina 1 fem. but not Tahua.
Schistocera americana 1 ad. fem. + Tahua at edge of woods.
Schistocera sp. 2 juvs. erupt roadside
Melanoplus sp. (short-winged) 10 erupt along road border of woods, and 2 ♀♀ in instar preceding maturity in woods at road edge. All fem.
Scudderia 1 fem. roadside bushes.
Conocephalus 2 juvs., fem. at road edge.
Camptonotus 1 ♂ erupt from low ~~growth~~ ground cover in woods.
Stenopelmatus 1 erupt from p. cover in woods.
Nemobius 1 erupt from ground in woods.
Anaxipha 1 erupt in edge of woods.

Orth. 16 + 392 = 408.
Orthoptera 7 + 235 = 242.

1946. 30 4 m. E. of Parksville, Polk Co., Tenn.
(No. side of Parksville Reservoir.) Elev. (aner.)
875 feet. Aug. 24, 1946. (Rehn.)
In open pine - oak woods and roadside
Sygbula. 1 juv. roadside
Schistocera 2 juvs. only.
Conocephalus allardi 1 juv. ♂ + 1♀ swept
from low thicket at forest edge.
Scudderia. Edge of woods.
Amblycorypha rehni. 2 - ditto
Orth. 7 + 408 = 415.
Other ins. 2 + 242 = 244.

1946. 31 East side of Little Frog Mtn.,
ab. 5 m. W. of Ducktown, Polk Co., Tenn.
Elev. (aner.) 1600 feet. Aug. 24, 1946. (Rehn.).
On steep slope with oak scrub and pine
saplings - other cover tall bunch grass,
sumac, sassafras, etc. Slope heavily
washed - pulled.
Sygbula. A number adult & juvs.
Ambytropidia. Juvs. only - few.
Chortophaga 1 adult - roadside.
Mel. bivittatus. One adult ♀, roadside ditch.
Schist. Juvs. only.
Amblycorypha rotundifolia 1♀ swept
from low ground cover.
Scudderia. In oak scrub - more than

1946.31 (cont.).

Cnemophalus allardi ? Juv. only - suppt.

With. 20 + 415 = 435!

Within ins. 0 + 244 = 244.

1946.32. Nantahala, Swain Co., North Carolina. Elev. (anem.) ~~2000~~ 2100 feet. Aug. 24, 1946. (Rehn)

Rhinostoma roadside (drenched by rain)

Neocnemophalus in cut bank after shower.

With. 2 + 435 = 437.

Within ins. 0 + 244 = 244

1946.33 Bitumen hillsides and Balsam, Jackson Co., No. Carolina. Elev. (anem.) 2500 feet. Aug. 25, 1946. (Rehn.)

2200

In roadside bank under moist growth overhanging narrow mountain road with stream below.

Above up. 2 juvs. suppt, and apparently from a large leaved weed.

Chortophaga - juv., suppt.

Mel. fenton rubrum 1 ad. in drain - many juvs.

Scudderia - 1 ad. suppt.

Cnemophalus - juvs. not numerous.

With. 10 (+ 43) = 447.

Within ins. 7 + 244 = 251.

1946.34 Balsam Gap, Jackson - Haywood Co., No. Carolina. Elev. (b.m.) 3315 feet. Aug. 25, 1946. (Rain.)
Roadside thickets of blackberries, wild grape, tall weeds, sassafras, tulip saplings and tall grass. Also along R.R. right-of-way and shallow ditch by same.
Tettigidea 1 rept from R.R. ditch - all sex.
Tettrix in grass, roadside.
Dyctiota dominica. ad. ♂ juvs. - roadside.
Chloealtis 1 ad. ♂ at edge of wood strip, near a dead log.
Chortophaga juvs. - roadside.
Encoptolophus. 1 ad. ♂ + num. juvs. - roadside.
Hippiscus ? tiny small juvs. - roadside.
Trid. femur-rubrum - tiny juv adults, num. juvs. - roadside.
~~Acrid. sp.~~
Scudderia - numerous, flying into low trees and shrubs.
Conocephalus - tiny juv juvs.
Orchelimum vulgare. 1 ad. ♂ swept from tall grass.
Neoconocephalus ensiger, chiefly juvs. - roadside - wood edge.
Oecanthus 2 spp. ins. in a whole mimosa in woody cutting.

Orth. 42 + 44 = 489.
Other ins. 38 + 251 = 289.

1946.35 (Morning) Buncombe Co., No. Carolina.
Elev. (anec.) 2100 feet. Aug. 25, 1946. (Rehn.)
Roadside bank - ditch, with muddy growth of sumac, sassafras & locust saplings, with a small patch of bunch grass and tangles of wild blackberries.
Chortophaga fem. only - roadside
Mel. viridis Two, two adt. ♂♂ taken.
" sic ? Two males in instar preceding maturity.
" carnegiei ? One female.
Melanoplus differ. differ. 1 juv. ♀.
Camnula Nymph 1 ad. ♂
" sp.? Numerous juvs.
Acrydium 1 juv.
Orth. 171 + 489 = 506.
Other ins. 5 + 289 = 294.

1946.36 Pisgah Forest, about 4 m. N. of town of same name, Co. Slope of Pisgah Ridge, Transylvania Co., No. Carolina. Elev. (anec.) ~~1950~~ 2200 feet. Aug. 26, 1946. (Rehn.)
In tangles of low berry bushes, with much trailing wild blackberry vine, numerous pine saplings, etc. in opening of heavy deciduous and pine forest.
Syntula - one fem in short grass - 1 taken.
Mel. femur-rubrum. Juvs. funeral, adults very few.

Mul. decoptus ? Locally numerous, both adults - juvs. About all adults which could be located were taken. Very few adult ♀♀. Usually found where low wild strawberry vines were present, but were then very scarce. Not particularly active for a short-winged form.

Schist. Juvs. Immat.

Scudderia - Nymphs only seen - none collected.

Neoconocephalus. Sev. juvs. nympt.

Conocephalus brev. Scattered. Adults + juvs.

" thos sp.? Nymphs only (cut and inj.)

Neanthes. In low ground cond.

Phyllopsyrtus Rare nympt found in foliage.

Chortophaga. A few juvs. only - in short grass.

Orth. 48 + 506 = 554.

Other ins. 17 + 294 = 311.

1946. 37 Gap in Pisgah Ridge crossed by U.S. 276 Forks. Mt. Pisgah - Waynesville, Haywood - Transylvania Counties, No. Carolina. Elev. (ann.) 4950 feet. Clear. Aug. 26, 1946. (Rain.)

Roadside - thickets of trailing vines, goldenrod, bordering Kalmia - Rhododendron thickets edged. Trees deciduous forest of average to small height.

Tettigidea - 1 nympt found.

Orphulella pelid. Two taken sporadically in low growth.

1946.37 (cont.)
Hisseretina adults - piso. roadside. Imm. quite small.
Mit. walshi Fnd in litchets. Also piso.
" mex. Commn, adults - piso. roadside and bordering areas.
With. 22 + 554 = 576.
Letter ins. 35 + 311 = 346.

1946.38, Pisgah Ridge, South slope of Pisgah Ridge, betw. Stations 1946.36 & 1946.37, 3 m. below Cattle, on U.S. 276. Transylvania Co., No. Carolina. Elev. (anec.) 3300 feet, but thick. Aug. 26. 1946. (Rehn).

Road edge and in adjacent deciduous and pine forest. Undergrowth in part layly Kalmia + Rhododendron, much sapling chestnut + Tulip - trees and dried trees & trees.

Sphagnum Willi ♂ + ♀ taken separately at forest edge.
Mit. luridus 1 ♂ ~~taken~~ forest edge.
" Th. v. 1 juv. in forest litter.
Amblycorypha rotundifolia. 1 ♀ nymph from edge.
Orchelimum 1 juv. ditto.
With. 6 + 576 = 582.
Letter ins. 11 + 346 = 357.

1946. 39 Above Rocky Bottom, Pickens Co., So. Carolina. (About 2 m. below Summit crossing of Blue Ridge Mts. Alt. 1800 feet. Clear. (warm.) Aug. 26. 1946. (Rain.)

Road openings in heavy deciduous forest, with bordering roadside fringes of cassia, (yellow flowered) sumac, golden rod, blackberry and trailing wild strawberry. A few bare spots along roadside.

Tettigids (Tettigidea + appar. Neotettix) near road on ground & in undergr. patches.

Melanoplus 1♀ in meds.

Chorthipp. Juvs. various sizes, roadside, not uncommon.

Schist. acuta. Juvs. in car. instars in mine tangled roadside vegetation - locally numerous.

Mel. bivittatus. Occasional -

" mex. Few roadside

" differtus? Very few - exceedingly local, all seen taken.

Hesperotettix. All seen taken - 1 juv.

Scudderia. Very few.

Conocph. brev. Few - all juvs.

Orchelimum. Very few.

Nothing at all in heavy woods.

Orth. 27 + 582 = 609.

Other ins. 25 + 357 = 382.

1946.40 Near Fletcher, Henderson Co., N. Car. Eelw. (ann.) 2050 feet. Aug. 27, 1946. (Rehn.)
In roadside vegetation & in open pine-decid. woods, partly cleared out & part with natural undergr. Little Utah.
Tettig. Juv. roadside in low conn.
Mel. sp. Juvs. few in tall weeds.
Scaphoideus, imprt from Utah desert.
Utah. 3 + 609 = 612.
Other ins. 18 + 382 = 400.

No number.
Asheville, Buncombe Co., N. C. Aug. 27, 1946. (Rehn.)
Symmetroplevra, flew in door & crawled at intract.
Utah. 1 + 612 = 613.
Other ins. 0 + 400 = 400.

1946.41 Near Emory, Washington Co., Va. Eelw. (ann.) 1600 feet. Aug. 30, 1946. (Rehn.)
In old field with golden rod, thistle, low blackberry bushes.
Nonalettix. One imprt from barn yard.
Syntuta 1 imprt - all dam.
Aphrin sp. 1 juv. imprt.
Chortophaga 1 adult - all dam.
Melan. femur-rubrum. Adts. & juvs. abundant.
Conocephalus strictus. Few.
" Euxiphemin. Few.

Sanguinaria Rare - 1 ♀ Taken.
Vaccinium. Abundant - all tmpt
Rhododendron. Rare, tmpt.
With. 64 + 613 = 677.
Without. 2 + 400 = 402.

1946.42 3 m. due E. of Marion, Smyth Co., Va. Elev. (aner.) 2300 feet. Aug. 30, 1946. (Rehn.)

Roadside + edge of deciduous woodland, with cut spots + banks of golden rod, wild mint, numerous blueberry bushes and trailing wild strawberry vines.

Tettigidea - tmpt - mod lge.
Melanoplus. In mod.
Dyspharagus wilki. Rare - all ♂♂ - at wood edge.
Mel. bivittatus. Rare extended old female in cut spot - all ♂♂.
Mel. differentialis. Few adults - juvs. In tall roadside mud.
M. femur-rubrum? 1 ad. ♀ - juvs. Very few at edge of frost.
Camnula. Not common in tall weeds.
Chrysochraon. Very few.
With. 2½ + 677 = 697.
Without. 69 + 402 = 471.

1946.43 Iron Mts., 6 m. S. E. of Marion, Smyth Co., Va. Elev. (aner.) 2900 feet. Aug. 30, 1946. (Rehn.)

In grown-up old field at edge of deciduous forest. Corn Oldfieldonia, Grande, Trailing Strawberry vines, prairie grass & saplings of numerous species & forest trees.

Tettigidea. Com, mapt.

Rhiostoria. Common & taken in field.

Mel. femur-rubrum nov. Adults. juvs. numerous.

" unidus Juv. adults com, not taken, but mostly juvs. Much less numerous than preceding.

Mel. differentialis. Not common. Taken.

Conocph. triviz. Few.

Neoconocephalus. In Corn growth.

Orth. 18 + 697 = 715.

Other ins. 14 + 471 = 485.

1946.44 One mile W. of Wytheville, Smyth Co., Va. Elev. (aner.) 1950 feet. Aug. 30, 1946. (Rehn.)

Roadside vegetation & edge of woodland with some hemlock.

Chort. Juvs. only - few.

Mel. femur-rub. Common, adults & juvs.

Conocph. strictus Adults & juvs. & juvenus.

Neoconocephalus sp. c. juveniles.

Melanoplus. In juvenus.

Orth. 22 + 715 = 737.

Other ins. 4 + 485 = 489.

1946.45 Riner, Montgomery Co., Va. Elev. (aner.) ~~1950~~ 2050 feet. Aug. 31, 1946. (Kelm.)
Roadside & adjacent bank with blackberries, milkweed, wild carrot, hawthorn and tall grass.

Tetrigid - 1 nymph, roadside.
Chortophaga. - 1 ad. & juvs. on bank.
Mel. femur-rubrum. Numerous, general, chiefly adults.
Mel. bivittatus type. Local on bank - no roadside. rapidly adult.
Conocephalus - 2 spp. Numerous, mostly juvs.
Orchelimum - very few.

Orth. 22 + 715 = 737.
Lepidoptera 9 + 485 = 494.

1946.46 7 miles N.W. of Floyd, Floyd Co., Va.
Elev. (aner.) ~~1850~~ 2200 feet. Aug. 31, 1946. (Kelm.)
Roadside and on top & bordering bluff a heavily tangled old field with many scattered pines and a surface in spots nearly (in pits) pine barren. Some in taller vegetation, mainly bunch grass, hawthorn, blackberry, smilax, wild strawberry, etc.

Tetrigids. 1 nymph.
Chortophaga. Juvs. only.
Orphia. One adult near large tree rock outcrop on top of bluff - a few juvs. mostly.

1946.46 (cont.).
Sphagnum Wilf. ♂ taken separately near rock exposure.
Leucobryum. On on rock exposure.
Isopterygium? Imm. on side.
Mnl. triquetrus 1♂ 1♀ separately - first on slope, second on rock fragment above.
Mnl. cuspidatus. Local on top of bluff.
" undulatum type. Local on both slope & top of bluff.
Conocephalum 2 spp. Not common, mostly juv.
Lophocolea. 1♂ 1♀. On rotting fragment on top of bluff.
Pleurozium. Numerous, mostly on top of bluff.
Rock. 34 + 13? = 771.
Rotten wd. 19 + 494 = 513.

1946.47. Blue Ridge Parkway Intersection, 6 m. S. of Floyd, Blue Ridge, Floyd Co., Va. Elev. (aner.) 2800 feet. Aug. 31, 1946. (Rehm.)
Openings in fall deciduous forest, with broad cleared roadside area, and also an adjacent section of open pasture-like ground, with reindeer type moss, the latter with scattered small trees and much bare ground. Woodland ground cover chiefly low huckleberries, principally and leaf litter, with many decayed logs.
Tetraphidaceae. Acrocarpous. In open situations.
Haplotettix. In open-like areas - in woodland

Agelenidella spurisa. Two seen, one taken. One captured in bunch-grass in barren-like area, the other last at wood edge – a mile apart.

Argiope ♂♀. Few adults – none juv.

Clubionidae. Juvs. only, roadside.

Epeiragynum trifi. Locally numerous, more so in barren area than in woodland, occ. flying up into oak trees.

Epeirotrema juvs. Few, in barren.

Mel. hirsutus. A few, singly in various situations.

" femineum. Common, roadside.

" Euvidus. Locally common – general but less so roadside.

" Mundani type. Local, but always near woodland. Adults + juvs.

" " Short-winged sp. Very local in forest, on leaf litter + in low blackberry bushes. Not moderately certain. Saw about 3, which escaped, in addit. to the 2 ♂, 4 ♀ captured.

Scudderia. But 1 seen – a taken – in barren area.

Conocephalus, Local, chiefly juvs.

Hesperias. Common. Two spp.?

Orth. 109 + 771 = 880.

Other ins. 36 + 513 = 549.

1946.48 Along upper course of Roanoke River, near McDonald's Mill, 9 m. W. S. of Blacksburg, Montg. Co., Va. Elev. (aneroid) 1700 - 2100 feet. Sept. 1, 1946. (Rehder)

Long hill slope with many exposures of weathered and eroded limestone & shale, clothed sparingly with stunted pine & red cedar, with tangles of hawthorn, some thistle and much bluegrass. Shale fragments clothing many areas solidly and the whole slope heavily wooded.

Equisetum - a few jims.

Asplenium ruta-muraria - a few. Very fine plants.

Cystopteris bulbifera - Rare. Only a few small plants.

Cheilanthes lanosa - Rare. Only a few small plants.

Asplenium platyneuron - Rare. Only a few small plants.

Except. modest - A single adult fern & young.

Polypodium vulgare. Numerous, esterior.

Sphagnum planum. A very few - too fragmentary to determine. Partial to the large outcrop areas of solid limestone. Protection probably very decided.

Mnestobrenia L. Thomasi. But two moss - one Fabron. Rare on shale area.

Schist. Few jims only.

Mnl. fernum - rubrum } A few of each but not
" mexicanus } numerous.

" rudolphi type. 1 Q about hawthorn bushes - hunted diligently for more without success.

Conocephalum conicum. Few. Local, in trench from.

" Asterisco. Few in heavier growth.

Anomodon. Not common - sterile.

Vascular 29 + 880 = 909.

Vascular jims. 4 + 549 = 553

1946.49 5 m. S. W. of Catawba, Roanoke Co., Va. Eelw. (amer.) 1300 feet. Sept. 1, 1946. (Rehm.) 1900

Old field on slope heavily grown up in sumac and other woody bushes and tall weeds, much grass & entangling smilax. Scattered red cedars.

Asphira xanth. Not common - adults - juno.
Conocept. modius Imy fem, adlts - juno.
Mel. Sundevi Type. 1 ad. ♂ in my coll and punct.
" trivittatus 10 ♀ Rehm typ. in ditto.
Sundevia. Two Rehm from much grass & 1 from red cedar.
Neoconocph. robustus type. 1 ad. ♀ (punct).
Inspt from tall much grass. This grass is pinkish red at the top mid.
Conocephalus strictus Uhmanni.
" saltans " chiefly juv.
Amblycorypha. oblongifolia. Inspt.
Orth. 28 + 909 = 937.
Other ins. 7 + 53 = 60.

Craig Creek No. 5 No. 1 Camp

1946.50 3 m. N. W. of Catawba, Craig Co., Va. Eelw. (amer.) 1400 feet. Sept. 1, 1946. (Rehm.) 1500

Along brushy roadside edge of solid forest, almost entirely deciduous, with oak, tulip & maple predominating. Also in small openings extending into the unproductive solid forest.

1946.50 (cont.)

Nonstellex. Occ rupt hygrophytic ground conn.

Asplenia x austr. Few - roadside.

Athyrium. thelyp. Occ in frost opening.

Mel. ~~fontana~~ lunidens. Common, chiefly roadside.

Mel. pseudini type. A few - roadside.

" dumosa type. Very local and not at all frequent in frost openings; Ledb. - Jiss. Tahun.

~~Conoc~~

Amblyonyxpha ahlesi. 14 (along trails + at frost edge)

rupt - roadside. (Amaxipha rupt here + frost openings.

Leith. 27 + 937 = 964.

Lethum iris. 9 + 560 = 569.

1946.51. E. 3 m. S.W. of New Castle, Craig Co, Va. [On top of mtn. ridge ending just W. ? of New Castle - name ?.] Elev. (anal). 1975 feet. Sept. 1, 1946. (Rehm)

Edge of deciduous forest, chiefly oak, with ground largely moss-covered and plant-cover largely, except much library bushes, with vine / blackberries.

Mel. lunidens. Jmss. only.

" pseudini type. Fruits numerous.

" dumosa type. Few. 2 ♀ ♀ taken.

Parmeliotrypa - contiguous. 18 in bushes. Emig much failed to produce more.

Leith. 13 + 964 = 977.

Lethum iris. 3 + 569 = 572.

1946.52 Mrs Huffman, Craig Co., Va.
Eelw. (unm). ~~2400~~ 2400 fut. Sept. 1, 1946.
(Rehm.)

Along edge of tall deciduous woods, with canes, chinkapin, ~~huff~~ sassafras, etc., with solid mats of huckleberry bushes as ground cover.

No ferns, even at all but Aspidotis, which was rare.

Vasc. 2 + 977 = 979.

Other ins. 2 + 5/2 = 5/4.

1946.53 Brush Mtn.
Three miles S.E. of Newport, Montgomery Co., Va. Eelw. (unm) ~~1600~~ 2500 fut. Sept. 1, 1946. (Rehm.).

In grass-up clearing on nthn. slope of ridge E. of Newport. Surrounded by timber.

Corn pholem rost, blackberries, grass, many other weeds & grasses.

Cystopteris xanth. a few.
Aspidotis pulcherrima - 1 juv. - all rare.
Pteridium aquilinum latiusculum
" 1 juv. all rare.
" brittatum. Several rare, & taken.
Scudderia. Few.
Onoclea sensibilis ? Few
" Struthiopteris Germanica.

Vasc. 21 + 979 = 1000.
Other ins. 14 + 5/4 = 588.

1946.54 3 m. N. of Buchanan, Botetourt Co., Va. Elev. (aner.) ~~2000~~ 1200 feet. Sept. 2, 1946. (Rehn.)
Open woods and in mixed woodland, but predominatingly deciduous, also roadside weeds. Undergr. mostly mixed, but with much oak scrub.

Aphis X. One at road edge
Mel. fem. nub. At road edge:
" scudderi type. Few - in woods openings.
Amblycorypha rotundifolia. 1♀ rupt from frost undergr.
Conocephalus. Few rupt in open spots in woods.
Phyllopsaltria. Numerous in brush fronting in thinned out forest. All rupt from ovi.
Neoconocephalus. Few ditto. scrub in cl. oak
Hapithus. Seven in same situations.
Amblycorypha One ditto.
Orchelimum. Two species. Ditto.

Orch. 28 + 1000 = 1028.
Others. 6 + 588 = 594.

1946.55 Steeles Tavern, Augusta Co., Va.
Elev. (aner.) ~~1550~~ 1200 feet. Sept. 2, 1946. (Rehn)
In deciduous woodland and edge of fence, also roadside. Undergr. chiefly oak scrub and blackberry bushes.

Neoconocephalus. Roadside.
Xiphidium. Fabri. One, at road edge.
Melanoplus femur-rubrum. Roadside.

Melan. rudderi type. Few juvs, only at road edge.
Sundevia. Unexcept from oak scrub.
Conocephalus. Fed hmpt. 2 spp.
Orchelimum. " "

Meth.	12	+ 1028	= 1040.
Other ins.	18	+ 594	= 612.

1946.56 Rawley Springs, Rockingham Co., Va.
Elev. (mun.) ~~+350~~ 1600 feet. Sept. 3, 1946. (Rehn.)
In and along edge of deciduous forest, also roadside. Undergr. in forest very dense & high with almost no Meth.
Melan. femur-rubrum. Roadside.
" linidus. Une along forest trail.
Hieroglyphus. Une adpt from wild grape - roadside.

Meth.	3	+ 1040	= 1043.
Other ins.	4	+ 612	= 616.

1946.57 Four miles N.W. of Rawley Springs, Rockingham Co., Va. Elev. (mun.) 1700 feet. 2000+
Sept. 3, 1946. (Rehn.)
In deciduous woodland with hickory predominating, also old roads into same, and many disturbed roadside conditions.
Orphulella speciosa. Very few, roadside in thin weeds - grasses.

1946.V [cont.]

Hypnum imponens. Terrestrial on rotten log.
Common in dry woods.
Sphagnum Wilfi. A few on moist edge of
in woods.
Mnium ferruginosum. Two - roadside.
" undulatum. Two - one taken, at
moist edge.
Mnium. Timidum. One fr. taken in same
Scandonia. One rupt from mid-carni-
-vorside.
Cinclidotus. Two - fins.
Atrichum undulatum? One rupt from
ground one at moist edge.
Plagiothecium. Rupt ditto.

Vasc. 21 + 1043 = 1064.
Other nos. 25 + 616 = 641.

1946. 58 Road crossing at Shenandoah Mtn.,
Rockingham Co., Va. - Pendleton Co., W. Va.
Most of Ramsey Spgs., Va. Elev. (track mark) 3450-
3560 feet. Sept. 3, 1946. (Rehm.)
Ridge top of main ridge in a maturing
climatic low decid. - pine forest, decid-
uous elements chiefly hickory, chestnut
oak, chestnut, maple, ash, etc. Undergrowth
in forest including huckleberry bushes,
and some trout fern. In ravines one
base broken small stones with lichen
covering and some reindeer moss. Also
stony road leading into forest and

old field grown up in var. tall grasses & wild carrot
Nonotelix. Usual on lichen covered stones
in great opening.
Sphagnum Wilf. Common on road as
well as in great openings.
Spar. plumum. Two ♂, 1 ♀ taken on a very
dim to stony road, in company with
S. Wilf + Hississotria. Looked for more, but
failed to find them.
Hississotria. Common stony road.
Melan. lemur-rubrum. Few - roadside &
in old field.
Melan. lunidens. Adults. + juvs. Not uncom-
mon & rather general. Make very pretty
in size.
Melan. Scott-wingi. Three ♀♀♀ found,
although long search was made for more
- for the male. Only on the lichen covered
small stones and adjacent low corn in
a swampy spot in the west.
Hexanthius. Juvs. only - swept.
Hamatus. swept in woods.
Orth. 38 + 1064 = 1102.
Other sis. 29 + 641 = 670.

1946.59 East side of Shenandoah Mtn. above Rawley Springs, Rockingham Co., Va. Elev. (aneroid) 2550 feet. Sept. 3, 1946. (Rehn)

Narrow ledge on very steep slope clothed solidly with deciduous forest, chiefly oaks. Undergr. with much downy locust shrub, wild grape, smilax, etc.

Diaphromera. 1 juv. ♀ swept from oak shrub.

Phasma. stilli. Two, in forest.

Appalachia tuberculi 1♀ in ground in dead oak leaf litter - picked up, did not jump. No other sign, altho' long search was made.

Mel. volubili. One in ground cover.

" Thom-limped. One teneral ♀ badly smashed in bottling. In ground cover. Did seem altho' search was made for more.

Scudderia fasc. 3♀, one flying up into foliage of large oak tree. Other from oak scrub.

Decanthus. Swept from undergr.

With. 11 + 1102 = 1113.

Other sps. 4 + 670 = 679.

1946.60 East base of Shenandoah Mts.,
Rockingham Co., Va. above Rawley Springs.
Elev. (aneu.). 1700 feet. Sept. 3, 1946. (Rehm.)
In tall deciduous and hemlock forest,
with a few runny springs along rd
road and also the bottom of a dry
stony Torrent bed.

Scudderia fasc. Com from thrushy along
Torrent bed.

Neoconocephalus. Numerous in my box and
dense ground cover of trailing hemp
vines in open spot and along Torrent
banks.

Gryllus. 12 + 1113 = 1125.
Gryllus sig. 10 + 679 = 689.